

Concentrations

23-Feb-24 17:02:01



Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 1 Analysis started at: 22-Feb-24 11:51:17
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.052 ppb	0.069 ppb	0.003 ppb	0.517 ppb	0.520 ppb	-0.001 ppb	0.018 ppb	0.024 ppb	0.018 ppb
Concentration per Run 1	0.050 ppb	0.067 ppb	0.003 ppb	0.514 ppb	0.516 ppb	-0.001 ppb	0.019 ppb	0.018 ppb	0.016 ppb
Concentration per Run 2	0.052 ppb	0.068 ppb	0.003 ppb	0.520 ppb	0.523 ppb	-0.001 ppb	0.019 ppb	0.024 ppb	0.021 ppb
Concentration per Run 3	0.052 ppb	0.069 ppb	0.003 ppb	0.516 ppb	0.519 ppb	-0.001 ppb	0.018 ppb	0.024 ppb	0.017 ppb
Concentration per Run 4	0.052 ppb	0.071 ppb	0.003 ppb	0.516 ppb	0.521 ppb	-0.001 ppb	0.017 ppb	0.030 ppb	0.017 ppb
Concentration RSD	1.8 %	2.7 %	3.2 %	0.5 %	0.6 %	5.7 %	4.9 %	20.3 %	14.0 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.003 ppb	0.002 ppb	0.000 ppb	-0.136 ppb
Concentration per Run 1	0.002 ppb	0.002 ppb	0.000 ppb	-0.138 ppb
Concentration per Run 2	0.003 ppb	0.002 ppb	-0.001 ppb	-0.131 ppb
Concentration per Run 3	0.003 ppb	0.003 ppb	0.000 ppb	-0.139 ppb
Concentration per Run 4	0.003 ppb	0.003 ppb	0.000 ppb	-0.136 ppb
Concentration RSD	18.3 %	21.5 %	23.3 %	2.8 %

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2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 2 Analysis started at: 22-Feb-24 11:56:24
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.051 ppb	0.068 ppb	0.003 ppb	0.529 ppb	0.525 ppb	-0.001 ppb	0.018 ppb	0.029 ppb	0.019 ppb
Concentration per Run 1	0.049 ppb	0.068 ppb	0.003 ppb	0.527 ppb	0.526 ppb	-0.001 ppb	0.020 ppb	0.025 ppb	0.019 ppb
Concentration per Run 2	0.050 ppb	0.068 ppb	0.003 ppb	0.530 ppb	0.549 ppb	-0.001 ppb	0.016 ppb	0.029 ppb	0.020 ppb
Concentration per Run 3	0.052 ppb	0.068 ppb	0.003 ppb	0.525 ppb	0.511 ppb	-0.001 ppb	0.020 ppb	0.022 ppb	0.019 ppb
Concentration per Run 4	0.053 ppb	0.068 ppb	0.003 ppb	0.534 ppb	0.515 ppb	-0.001 ppb	0.017 ppb	0.039 ppb	0.017 ppb
Concentration RSD	3.1 %	0.6 %	5.9 %	0.7 %	3.3 %	22.1 %	11.9 %	26.1 %	8.4 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.003 ppb	0.004 ppb	0.000 ppb	-0.143 ppb
Concentration per Run 1	0.002 ppb	0.003 ppb	-0.001 ppb	-0.144 ppb
Concentration per Run 2	0.002 ppb	0.003 ppb	-0.001 ppb	-0.146 ppb
Concentration per Run 3	0.004 ppb	0.004 ppb	0.000 ppb	-0.142 ppb
Concentration per Run 4	0.004 ppb	0.004 ppb	0.000 ppb	-0.142 ppb
Concentration RSD	40.2 %	16.5 %	16.8 %	1.3 %

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2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 3 Analysis started at: 22-Feb-24 12:01:31
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.052 ppb	0.067 ppb	0.003 ppb	0.533 ppb	0.532 ppb	-0.001 ppb	0.019 ppb	0.025 ppb	0.019 ppb
Concentration per Run	0.052 ppb	0.067 ppb	0.003 ppb	0.533 ppb	0.532 ppb	-0.001 ppb	0.019 ppb	0.025 ppb	0.019 ppb
Concentration RSD	0.7 %	4.6 %	13.5 %	0.7 %	3.7 %	9.3 %	1.8 %	18.9 %	16.5 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.002 ppb	0.002 ppb	0.000 ppb	-0.144 ppb
Concentration per Run	0.002 ppb	0.002 ppb	0.000 ppb	-0.144 ppb
Concentration RSD	15.5 %	46.2 %	16.2 %	1.3 %

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LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 4
Analysis label: M28RuPdRe 0 ppb 300µL HNO3 30.10.2023 mtr

Analysis started at: 22-Feb-24 12:06:38
User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.005 ppb	0.016 ppb	0.000 ppb	0.110 ppb	0.110 ppb	-0.001 ppb	0.007 ppb	0.008 ppb	0.009 ppb
Concentration per Run 1	0.004 ppb	0.016 ppb	0.000 ppb	0.110 ppb	0.110 ppb	-0.001 ppb	0.007 ppb	0.008 ppb	0.009 ppb
Concentration per Run 2	0.005 ppb	0.015 ppb	0.000 ppb	0.101 ppb	0.099 ppb	-0.001 ppb	0.006 ppb	0.014 ppb	0.004 ppb
Concentration per Run 3	0.004 ppb	0.017 ppb	0.001 ppb	0.103 ppb	0.089 ppb	-0.001 ppb	0.006 ppb	0.003 ppb	0.005 ppb
Concentration per Run 4	0.005 ppb	0.017 ppb	0.000 ppb	0.107 ppb	0.103 ppb	-0.001 ppb	0.008 ppb	0.014 ppb	0.004 ppb
Concentration RSD	7.7 %	7.0 %	47.0 %	3.8 %	8.8 %	6.2 %	9.6 %	54.5 %	43.0 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.024 ppb	0.024 ppb	0.000 ppb	-0.159 ppb
Concentration per Run 1	0.024 ppb	0.023 ppb	0.000 ppb	-0.159 ppb
Concentration per Run 2	0.023 ppb	0.024 ppb	0.000 ppb	-0.159 ppb
Concentration per Run 3	0.024 ppb	0.023 ppb	0.000 ppb	-0.287 ppb
Concentration per Run 4	0.025 ppb	0.024 ppb	0.000 ppb	-0.156 ppb
Concentration RSD	2.4 %	2.9 %	78.4 %	33.8 %

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2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 5 Analysis started at: 22-Feb-24 12:11:44
Analysis label: M28RuPdRe 1 ppb 300µL HNO3 30.10.2023 mtr User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.988 ppb	1.011 ppb	0.980 ppb	1.145 ppb	1.158 ppb	0.971 ppb	1.003 ppb	1.015 ppb	1.018 ppb
Concentration per Run 1	0.989 ppb	1.005 ppb	0.974 ppb	1.133 ppb	1.152 ppb	0.965 ppb	1.002 ppb	1.013 ppb	1.016 ppb
Concentration per Run 2	0.981 ppb	1.011 ppb	0.982 ppb	1.147 ppb	1.140 ppb	0.967 ppb	0.986 ppb	1.034 ppb	1.003 ppb
Concentration per Run 3	0.987 ppb	1.005 ppb	0.976 ppb	1.159 ppb	1.156 ppb	0.975 ppb	1.016 ppb	0.996 ppb	1.024 ppb
Concentration per Run 4	0.995 ppb	1.023 ppb	0.988 ppb	1.145 ppb	1.177 ppb	0.978 ppb	1.008 ppb	1.017 ppb	0.999 ppb
Concentration RSD	0.6 %	0.8 %	0.6 %	0.9 %	1.3 %	0.6 %	1.3 %	1.6 %	1.1 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	1.022 ppb	1.022 ppb	0.945 ppb	0.514 ppb
Concentration per Run 1	1.020 ppb	1.012 ppb	0.944 ppb	0.523 ppb
Concentration per Run 2	1.023 ppb	1.019 ppb	0.937 ppb	0.504 ppb
Concentration per Run 3	1.021 ppb	1.023 ppb	0.950 ppb	0.513 ppb
Concentration per Run 4	1.024 ppb	1.035 ppb	0.950 ppb	0.518 ppb
Concentration RSD	0.2 %	1.0 %	0.7 %	1.6 %

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2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 6 Analysis started at: 22-Feb-24 12:16:51
Analysis label: M28RuPdRe 5 ppb 300µL HNO3 30.10.2023 mtr User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	4.851 ppb	4.894 ppb	4.798 ppb	5.513 ppb	5.533 ppb	4.813 ppb	4.958 ppb	5.009 ppb	4.958 ppb
Concentration per Run 1	4.844 ppb	4.907 ppb	4.778 ppb	5.496 ppb	5.553 ppb	4.804 ppb	4.981 ppb	4.970 ppb	4.951 ppb
Concentration per Run 2	4.825 ppb	4.849 ppb	4.759 ppb	5.486 ppb	5.457 ppb	4.804 ppb	4.947 ppb	5.080 ppb	4.924 ppb
Concentration per Run 3	4.870 ppb	4.915 ppb	4.830 ppb	5.539 ppb	5.565 ppb	4.833 ppb	4.961 ppb	4.982 ppb	4.948 ppb
Concentration per Run 4	4.864 ppb	4.905 ppb	4.816 ppb	5.532 ppb	5.565 ppb	4.817 ppb	4.943 ppb	5.001 ppb	5.002 ppb
Concentration RSD	0.4 %	0.6 %	0.7 %	0.5 %	0.9 %	0.3 %	0.4 %	1.0 %	0.7 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	4.942 ppb	4.955 ppb	4.679 ppb	3.877 ppb
Concentration per Run 1	4.905 ppb	4.948 ppb	4.677 ppb	3.905 ppb
Concentration per Run 2	4.943 ppb	4.932 ppb	4.651 ppb	3.861 ppb
Concentration per Run 3	4.984 ppb	4.978 ppb	4.717 ppb	3.894 ppb
Concentration per Run 4	4.939 ppb	4.960 ppb	4.672 ppb	3.849 ppb
Concentration RSD	0.7 %	0.4 %	0.6 %	0.7 %

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2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 7
Analysis label: M28RuPdRe 10 ppb 300µL HNO3 30.10.2023 mtr

Analysis started at: 22-Feb-24 12:21:59
User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	9.578 ppb	9.620 ppb	9.509 ppb	9.361 ppb	9.493 ppb	9.351 ppb	9.670 ppb	9.727 ppb	9.717 ppb
Concentration per Run 1	9.609 ppb	9.648 ppb	9.515 ppb	9.361 ppb	9.506 ppb	9.495 ppb	9.682 ppb	9.767 ppb	9.760 ppb
Concentration per Run 2	9.659 ppb	9.686 ppb	9.560 ppb	9.454 ppb	9.575 ppb	9.539 ppb	9.750 ppb	9.787 ppb	9.796 ppb
Concentration per Run 3	9.509 ppb	9.565 ppb	9.485 ppb	9.316 ppb	9.389 ppb	9.380 ppb	9.601 ppb	9.634 ppb	9.629 ppb
Concentration per Run 4	9.535 ppb	9.582 ppb	9.477 ppb	9.415 ppb	9.504 ppb	9.393 ppb	9.669 ppb	9.720 ppb	9.684 ppb
Concentration RSD	0.7 %	0.6 %	0.4 %	0.6 %	0.8 %	0.8 %	0.6 %	0.7 %	0.8 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	9.677 ppb	9.659 ppb	9.320 ppb	4.847 ppb
Concentration per Run 1	9.723 ppb	9.685 ppb	9.383 ppb	4.858 ppb
Concentration per Run 2	9.775 ppb	9.747 ppb	9.420 ppb	4.886 ppb
Concentration per Run 3	9.620 ppb	9.540 ppb	9.200 ppb	4.794 ppb
Concentration per Run 4	9.591 ppb	9.665 ppb	9.279 ppb	4.849 ppb
Concentration RSD	0.9 %	0.9 %	1.1 %	0.8 %

Concentrations

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LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 8
Analysis label: M28RuPdRe 20 ppb 300µL HNO3 30.10.2023 mtr

Analysis started at: 22-Feb-24 12:27:07
User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	18.993 ppb	19.109 ppb	18.855 ppb	18.845 ppb	18.992 ppb	18.955 ppb	19.193 ppb	19.381 ppb	19.239 ppb
Concentration per Run 1	18.986 ppb	19.047 ppb	18.770 ppb	18.739 ppb	18.858 ppb	18.822 ppb	19.170 ppb	19.230 ppb	19.119 ppb
Concentration per Run 2	19.057 ppb	19.048 ppb	18.855 ppb	18.863 ppb	19.170 ppb	18.953 ppb	19.229 ppb	19.467 ppb	19.319 ppb
Concentration per Run 3	18.916 ppb	19.139 ppb	18.822 ppb	18.920 ppb	18.823 ppb	19.028 ppb	18.996 ppb	19.454 ppb	19.206 ppb
Concentration per Run 4	19.012 ppb	19.164 ppb	18.976 ppb	18.870 ppb	19.116 ppb	19.015 ppb	19.176 ppb	19.373 ppb	19.313 ppb
Concentration RSD	0.3 %	0.3 %	0.5 %	0.4 %	0.9 %	0.5 %	0.5 %	0.6 %	0.5 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	19.188 ppb	19.102 ppb	18.630 ppb	9.744 ppb
Concentration per Run 1	19.069 ppb	19.098 ppb	18.520 ppb	9.755 ppb
Concentration per Run 2	19.210 ppb	19.120 ppb	18.574 ppb	9.693 ppb
Concentration per Run 3	19.214 ppb	19.040 ppb	18.776 ppb	9.750 ppb
Concentration per Run 4	19.257 ppb	19.152 ppb	18.651 ppb	9.780 ppb
Concentration RSD	0.4 %	0.2 %	0.6 %	0.4 %

Concentrations

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LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 9
Analysis label: M28RuPdRe 50 ppb 300µL HNO3 30.10.2023 mtr

Analysis started at: 22-Feb-24 12:32:16
User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	46.114 ppb	46.131 ppb	45.827 ppb	45.732 ppb	45.903 ppb	46.077 ppb	46.301 ppb	46.658 ppb	46.518 ppb
Concentration per Run 1	46.069 ppb	46.209 ppb	45.963 ppb	45.701 ppb	46.256 ppb	46.012 ppb	46.752 ppb	47.075 ppb	46.757 ppb
Concentration per Run 2	46.197 ppb	46.239 ppb	45.854 ppb	45.840 ppb	46.059 ppb	46.174 ppb	46.120 ppb	46.901 ppb	46.307 ppb
Concentration per Run 3	46.146 ppb	46.281 ppb	45.951 ppb	45.675 ppb	45.940 ppb	46.127 ppb	46.502 ppb	46.784 ppb	46.624 ppb
Concentration per Run 4	46.044 ppb	45.796 ppb	45.538 ppb	45.712 ppb	45.596 ppb	45.995 ppb	46.070 ppb	46.670 ppb	46.367 ppb
Concentration RSD	0.2 %	0.5 %	0.4 %	0.2 %	0.6 %	0.2 %	0.7 %	0.4 %	0.5 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	46.679 ppb	46.321 ppb	45.051 ppb	38.039 ppb
Concentration per Run 1	46.596 ppb	46.413 ppb	45.025 ppb	37.959 ppb
Concentration per Run 2	46.852 ppb	46.278 ppb	45.213 ppb	38.137 ppb
Concentration per Run 3	46.891 ppb	46.576 ppb	45.093 ppb	38.399 ppb
Concentration per Run 4	46.376 ppb	46.016 ppb	44.871 ppb	37.660 ppb
Concentration RSD	0.5 %	0.5 %	0.3 %	0.8 %

Concentrations

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LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 10
Analysis label: M28RuPdRe 100 ppb 300µL HNO3 30.10.2023 mtr

Analysis started at: 22-Feb-24 12:37:26
User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	89.511 ppb	89.382 ppb	88.830 ppb	88.817 ppb	88.957 ppb	88.829 ppb	90.204 ppb	89.696 ppb	90.105 ppb
Concentration per Run 1	89.820 ppb	89.787 ppb	89.419 ppb	88.646 ppb	89.436 ppb	89.117 ppb	90.264 ppb	90.372 ppb	90.701 ppb
Concentration per Run 2	88.927 ppb	88.803 ppb	88.105 ppb	88.685 ppb	88.912 ppb	88.845 ppb	90.129 ppb	89.464 ppb	89.265 ppb
Concentration per Run 3	89.949 ppb	89.637 ppb	89.454 ppb	88.987 ppb	89.002 ppb	88.786 ppb	90.016 ppb	89.886 ppb	90.193 ppb
Concentration per Run 4	89.349 ppb	89.303 ppb	88.342 ppb	88.952 ppb	88.479 ppb	88.568 ppb	90.405 ppb	89.062 ppb	90.242 ppb
Concentration RSD	0.5 %	0.5 %	0.8 %	0.2 %	0.4 %	0.3 %	0.2 %	0.6 %	0.7 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	89.585 ppb	89.603 ppb	88.296 ppb	83.441 ppb
Concentration per Run 1	89.795 ppb	89.556 ppb	88.090 ppb	83.393 ppb
Concentration per Run 2	89.276 ppb	89.553 ppb	87.434 ppb	83.487 ppb
Concentration per Run 3	89.900 ppb	89.809 ppb	89.180 ppb	83.529 ppb
Concentration per Run 4	89.369 ppb	89.495 ppb	88.479 ppb	83.354 ppb
Concentration RSD	0.3 %	0.2 %	0.8 %	0.1 %

Concentrations

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2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 13 Analysis started at: 22-Feb-24 12:52:48
Analysis label: M42 0 ppb 300µL HNO3 16.02.2024 mtr User name: THERMOF-6VBH8PN\CPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run 1	0.000 ppb	0.002 ppb	0.000 ppb	-0.002 ppb	0.004 ppb	0.000 ppb	0.001 ppb	0.002 ppb	-0.001 ppb
Concentration per Run 2	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.006 ppb	0.001 ppb
Concentration per Run 3	0.000 ppb	-0.001 ppb	0.000 ppb	0.001 ppb	-0.010 ppb	0.000 ppb	-0.001 ppb	-0.005 ppb	0.001 ppb
Concentration per Run 4	0.000 ppb	-0.001 ppb	0.000 ppb	0.001 ppb	0.005 ppb	0.000 ppb	0.001 ppb	-0.003 ppb	-0.001 ppb
Concentration RSD	6.7 %	9.7 %	13.1 %	0.9 %	6.6 %	5.3 %	3.2 %	22.8 %	5.2 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run 1	0.000 ppb	-0.001 ppb	0.000 ppb	-0.013 ppb
Concentration per Run 2	0.000 ppb	0.000 ppb	0.000 ppb	-0.002 ppb
Concentration per Run 3	0.000 ppb	0.001 ppb	0.000 ppb	0.008 ppb
Concentration per Run 4	0.000 ppb	0.000 ppb	0.000 ppb	0.008 ppb
Concentration RSD	1.7 %	3.9 %	12.0 %	4.7 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 14 Analysis started at: 22-Feb-24 12:57:55
Analysis label: M42 1 ppb 300µL HNO3 16.02.2024 mtr User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.981 ppb	0.991 ppb	0.981 ppb	1.098 ppb	1.122 ppb	0.968 ppb	0.993 ppb	1.008 ppb	1.005 ppb
Concentration per Run 1	0.980 ppb	0.991 ppb	0.984 ppb	1.094 ppb	1.104 ppb	0.971 ppb	0.996 ppb	1.008 ppb	1.001 ppb
Concentration per Run 2	0.992 ppb	0.995 ppb	0.994 ppb	1.111 ppb	1.139 ppb	0.977 ppb	0.998 ppb	1.005 ppb	1.011 ppb
Concentration per Run 3	0.981 ppb	0.993 ppb	0.971 ppb	1.096 ppb	1.137 ppb	0.966 ppb	0.996 ppb	1.007 ppb	1.020 ppb
Concentration per Run 4	0.972 ppb	0.984 ppb	0.973 ppb	1.092 ppb	1.109 ppb	0.959 ppb	0.983 ppb	1.012 ppb	0.986 ppb
Concentration RSD	0.9 %	0.5 %	1.1 %	0.8 %	1.6 %	0.8 %	0.7 %	0.3 %	1.4 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.983 ppb	0.983 ppb	0.965 ppb	0.885 ppb
Concentration per Run 1	0.985 ppb	0.980 ppb	0.955 ppb	0.879 ppb
Concentration per Run 2	0.991 ppb	0.991 ppb	0.972 ppb	0.886 ppb
Concentration per Run 3	0.980 ppb	0.982 ppb	0.970 ppb	0.885 ppb
Concentration per Run 4	0.977 ppb	0.979 ppb	0.961 ppb	0.892 ppb
Concentration RSD	0.6 %	0.6 %	0.8 %	0.6 %

Concentrations

23-Feb-24 17:02:01



Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 15 Analysis started at: 22-Feb-24 13:03:02
Analysis label: M42 5 ppb 300µL HNO3 16.02.2024 mtr User name: THERMOF-6VBH8PN\CPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	4.913 ppb	4.958 ppb	4.899 ppb	4.858 ppb	4.959 ppb	4.881 ppb	4.984 ppb	5.056 ppb	4.983 ppb
Concentration per Run 1	4.862 ppb	4.917 ppb	4.877 ppb	4.818 ppb	4.878 ppb	4.849 ppb	4.948 ppb	5.037 ppb	4.962 ppb
Concentration per Run 2	4.924 ppb	4.982 ppb	4.904 ppb	4.870 ppb	4.998 ppb	4.895 ppb	4.989 ppb	5.094 ppb	4.997 ppb
Concentration per Run 3	4.906 ppb	4.975 ppb	4.898 ppb	4.870 ppb	4.910 ppb	4.876 ppb	4.964 ppb	5.006 ppb	4.967 ppb
Concentration per Run 4	4.959 ppb	4.959 ppb	4.920 ppb	4.872 ppb	5.048 ppb	4.905 ppb	5.037 ppb	5.087 ppb	5.005 ppb
Concentration RSD	0.8 %	0.6 %	0.4 %	0.5 %	1.6 %	0.5 %	0.8 %	0.8 %	0.4 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	4.972 ppb	4.952 ppb	4.858 ppb	4.720 ppb
Concentration per Run 1	4.959 ppb	4.922 ppb	4.806 ppb	4.683 ppb
Concentration per Run 2	4.983 ppb	4.963 ppb	4.891 ppb	4.747 ppb
Concentration per Run 3	4.973 ppb	4.961 ppb	4.851 ppb	4.718 ppb
Concentration per Run 4	4.974 ppb	4.964 ppb	4.884 ppb	4.732 ppb
Concentration RSD	0.2 %	0.4 %	0.8 %	0.6 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 16 Analysis started at: 22-Feb-24 13:08:09
Analysis label: M42 10 ppb 300µL HNO3 16.02.2024 mtr User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	9.842 ppb	9.933 ppb	9.854 ppb	9.770 ppb	10.027 ppb	9.792 ppb	9.955 ppb	10.036 ppb	9.976 ppb
Concentration per Run 1	9.820 ppb	9.920 ppb	9.802 ppb	9.760 ppb	9.976 ppb	9.732 ppb	9.911 ppb	10.031 ppb	9.988 ppb
Concentration per Run 2	9.997 ppb	9.992 ppb	9.977 ppb	9.882 ppb	10.103 ppb	9.914 ppb	10.085 ppb	10.116 ppb	10.116 ppb
Concentration per Run 3	9.763 ppb	9.920 ppb	9.838 ppb	9.724 ppb	10.039 ppb	9.746 ppb	9.882 ppb	9.991 ppb	9.940 ppb
Concentration per Run 4	9.786 ppb	9.902 ppb	9.797 ppb	9.715 ppb	9.989 ppb	9.776 ppb	9.943 ppb	10.007 ppb	9.859 ppb
Concentration RSD	1.1 %	0.4 %	0.9 %	0.8 %	0.6 %	0.8 %	0.9 %	0.6 %	1.1 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	9.966 ppb	9.963 ppb	9.694 ppb	7.938 ppb
Concentration per Run 1	9.946 ppb	9.924 ppb	9.645 ppb	7.957 ppb
Concentration per Run 2	10.048 ppb	10.105 ppb	9.819 ppb	7.983 ppb
Concentration per Run 3	9.929 ppb	9.910 ppb	9.662 ppb	7.913 ppb
Concentration per Run 4	9.943 ppb	9.915 ppb	9.648 ppb	7.900 ppb
Concentration RSD	0.6 %	0.9 %	0.9 %	0.5 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 17

Analysis label: M42 20 ppb 300µL HNO3 16.02.2024 mtr

Analysis started at: 22-Feb-24 13:13:16

User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	19.428 ppb	19.524 ppb	19.467 ppb	19.422 ppb	19.558 ppb	19.504 ppb	19.615 ppb	19.773 ppb	19.741 ppb
Concentration per Run 1	19.296 ppb	19.520 ppb	19.483 ppb	19.373 ppb	19.441 ppb	19.462 ppb	19.587 ppb	19.754 ppb	19.731 ppb
Concentration per Run 2	19.332 ppb	19.397 ppb	19.410 ppb	19.224 ppb	19.587 ppb	19.441 ppb	19.504 ppb	19.621 ppb	19.594 ppb
Concentration per Run 3	19.617 ppb	19.617 ppb	19.549 ppb	19.627 ppb	19.655 ppb	19.604 ppb	19.686 ppb	19.828 ppb	19.823 ppb
Concentration per Run 4	19.468 ppb	19.561 ppb	19.428 ppb	19.463 ppb	19.549 ppb	19.508 ppb	19.682 ppb	19.889 ppb	19.815 ppb
Concentration RSD	0.8 %	0.5 %	0.3 %	0.9 %	0.5 %	0.4 %	0.4 %	0.6 %	0.5 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	19.589 ppb	19.592 ppb	19.490 ppb	12.510 ppb
Concentration per Run 1	19.547 ppb	19.569 ppb	19.411 ppb	12.493 ppb
Concentration per Run 2	19.426 ppb	19.499 ppb	19.405 ppb	12.445 ppb
Concentration per Run 3	19.745 ppb	19.650 ppb	19.579 ppb	12.572 ppb
Concentration per Run 4	19.638 ppb	19.652 ppb	19.566 ppb	12.532 ppb
Concentration RSD	0.7 %	0.4 %	0.5 %	0.4 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 18 Analysis started at: 22-Feb-24 13:18:24
Analysis label: M42 50 ppb 300µL HNO3 16.02.2024 mtr User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	49.528 ppb	49.705 ppb	49.576 ppb	49.551 ppb	49.412 ppb	49.420 ppb	49.504 ppb	49.638 ppb	49.741 ppb
Concentration per Run 1	49.616 ppb	49.634 ppb	49.374 ppb	49.025 ppb	49.796 ppb	48.996 ppb	49.608 ppb	49.297 ppb	49.575 ppb
Concentration per Run 2	49.388 ppb	49.599 ppb	49.440 ppb	49.595 ppb	49.314 ppb	49.428 ppb	49.525 ppb	50.019 ppb	49.947 ppb
Concentration per Run 3	49.197 ppb	49.601 ppb	49.504 ppb	49.563 ppb	49.169 ppb	49.376 ppb	49.409 ppb	49.414 ppb	49.625 ppb
Concentration per Run 4	49.911 ppb	49.984 ppb	49.986 ppb	50.019 ppb	49.371 ppb	49.882 ppb	49.474 ppb	49.822 ppb	49.817 ppb
Concentration RSD	0.6 %	0.4 %	0.6 %	0.8 %	0.5 %	0.7 %	0.2 %	0.7 %	0.3 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	49.684 ppb	49.543 ppb	49.731 ppb	47.778 ppb
Concentration per Run 1	49.461 ppb	49.349 ppb	49.799 ppb	47.476 ppb
Concentration per Run 2	49.846 ppb	49.607 ppb	49.641 ppb	47.664 ppb
Concentration per Run 3	49.376 ppb	49.543 ppb	49.546 ppb	48.036 ppb
Concentration per Run 4	50.053 ppb	49.673 ppb	49.939 ppb	47.938 ppb
Concentration RSD	0.6 %	0.3 %	0.3 %	0.5 %

Concentrations

23-Feb-24 17:02:01



Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 19 Analysis started at: 22-Feb-24 13:23:33
Analysis label: M42 100 ppb 300µL HNO3 16.02.2024 mtr User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	100.371 ppb	100.252 ppb	100.338 ppb	100.369 ppb	100.380 ppb	100.416 ppb	100.330 ppb	100.220 ppb	100.185 ppb
Concentration per Run 1	99.882 ppb	100.170 ppb	99.553 ppb	99.649 ppb	100.020 ppb	99.922 ppb	99.581 ppb	100.152 ppb	100.132 ppb
Concentration per Run 2	100.249 ppb	100.202 ppb	100.522 ppb	100.158 ppb	100.577 ppb	100.264 ppb	100.673 ppb	100.287 ppb	100.579 ppb
Concentration per Run 3	100.814 ppb	100.419 ppb	101.071 ppb	100.808 ppb	100.697 ppb	101.282 ppb	100.690 ppb	100.525 ppb	99.978 ppb
Concentration per Run 4	100.538 ppb	100.216 ppb	100.208 ppb	100.862 ppb	100.228 ppb	100.197 ppb	100.378 ppb	99.915 ppb	100.049 ppb
Concentration RSD	0.4 %	0.1 %	0.6 %	0.6 %	0.3 %	0.6 %	0.5 %	0.3 %	0.3 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	100.245 ppb	100.316 ppb	100.274 ppb	101.332 ppb
Concentration per Run 1	99.886 ppb	99.805 ppb	99.961 ppb	101.444 ppb
Concentration per Run 2	100.487 ppb	100.672 ppb	100.254 ppb	101.106 ppb
Concentration per Run 3	100.120 ppb	100.073 ppb	100.213 ppb	101.126 ppb
Concentration per Run 4	100.488 ppb	100.716 ppb	100.670 ppb	101.653 ppb
Concentration RSD	0.3 %	0.4 %	0.3 %	0.3 %

Concentrations

23-Feb-24 17:02:01



Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 20 Analysis started at: 22-Feb-24 13:28:40
Analysis label: M42 10 ppb 1500µL HNO3 16.02.2024 mtr User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	9.842 ppb	9.933 ppb	9.854 ppb	9.770 ppb	10.027 ppb	9.792 ppb	9.955 ppb	10.036 ppb	9.976 ppb
Concentration per Run 1	9.899 ppb	9.941 ppb	9.900 ppb	9.820 ppb	9.978 ppb	9.865 ppb	9.972 ppb	10.012 ppb	10.053 ppb
Concentration per Run 2	9.779 ppb	9.880 ppb	9.780 ppb	9.735 ppb	10.069 ppb	9.745 ppb	9.930 ppb	10.058 ppb	9.863 ppb
Concentration per Run 3	9.854 ppb	9.971 ppb	9.853 ppb	9.788 ppb	10.015 ppb	9.793 ppb	9.958 ppb	9.931 ppb	9.930 ppb
Concentration per Run 4	9.834 ppb	9.942 ppb	9.881 ppb	9.739 ppb	10.045 ppb	9.765 ppb	9.962 ppb	10.143 ppb	10.057 ppb
Concentration RSD	0.5 %	0.4 %	0.5 %	0.4 %	0.4 %	0.5 %	0.2 %	0.9 %	1.0 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	9.966 ppb	9.963 ppb	9.694 ppb	7.938 ppb
Concentration per Run 1	10.000 ppb	10.005 ppb	9.717 ppb	7.951 ppb
Concentration per Run 2	9.905 ppb	9.907 ppb	9.697 ppb	7.866 ppb
Concentration per Run 3	9.969 ppb	9.962 ppb	9.739 ppb	7.959 ppb
Concentration per Run 4	9.991 ppb	9.979 ppb	9.623 ppb	7.977 ppb
Concentration RSD	0.4 %	0.4 %	0.5 %	0.6 %

Concentrations

23-Feb-24 17:02:01



Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 21 Analysis started at: 22-Feb-24 13:33:51
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.050 ppb	0.048 ppb	0.005 ppb	0.471 ppb	0.502 ppb	0.000 ppb	0.014 ppb	0.019 ppb	0.017 ppb
Concentration per Run 1	0.049 ppb	0.054 ppb	0.005 ppb	0.464 ppb	0.492 ppb	0.000 ppb	0.015 ppb	0.019 ppb	0.020 ppb
Concentration per Run 2	0.051 ppb	0.046 ppb	0.005 ppb	0.472 ppb	0.515 ppb	0.001 ppb	0.015 ppb	0.023 ppb	0.013 ppb
Concentration per Run 3	0.049 ppb	0.048 ppb	0.004 ppb	0.479 ppb	0.510 ppb	0.000 ppb	0.014 ppb	0.017 ppb	0.016 ppb
Concentration per Run 4	0.050 ppb	0.045 ppb	0.004 ppb	0.470 ppb	0.491 ppb	0.000 ppb	0.012 ppb	0.019 ppb	0.019 ppb
Concentration RSD	1.1 %	7.9 %	15.6 %	1.3 %	2.4 %	73.5 %	8.4 %	12.4 %	17.7 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.002 ppb	0.002 ppb	0.001 ppb	-0.036 ppb
Concentration per Run 1	0.002 ppb	0.001 ppb	0.002 ppb	-0.045 ppb
Concentration per Run 2	0.003 ppb	0.002 ppb	0.001 ppb	-0.038 ppb
Concentration per Run 3	0.001 ppb	0.003 ppb	0.001 ppb	-0.033 ppb
Concentration per Run 4	0.002 ppb	0.001 ppb	0.001 ppb	-0.029 ppb
Concentration RSD	31.1 %	41.7 %	27.2 %	19.1 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 22
Analysis label: RZE-011 - 0.1mol/L KOH 1.7V vs RHE 48h 5.8ml - 10%

Analysis started at: 22-Feb-24 13:39:00
User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.371 ppb	0.447 ppb	0.411 ppb	4.164 ppb	3.624 ppb	0.140 ppb	0.406 ppb	0.462 ppb	0.482 ppb
Concentration per Run 1	0.372 ppb	0.448 ppb	0.409 ppb	4.234 ppb	3.564 ppb	0.140 ppb	0.398 ppb	0.453 ppb	0.478 ppb
Concentration per Run 2	0.364 ppb	0.438 ppb	0.408 ppb	4.076 ppb	3.587 ppb	0.139 ppb	0.412 ppb	0.462 ppb	0.481 ppb
Concentration per Run 3	0.373 ppb	0.455 ppb	0.418 ppb	4.262 ppb	3.701 ppb	0.138 ppb	0.409 ppb	0.469 ppb	0.476 ppb
Concentration per Run 4	0.374 ppb	0.447 ppb	0.410 ppb	4.083 ppb	3.643 ppb	0.142 ppb	0.404 ppb	0.465 ppb	0.492 ppb
Concentration RSD	1.3 %	1.6 %	1.2 %	2.4 %	1.7 %	1.1 %	1.5 %	1.4 %	1.5 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	20.865 ppb	20.326 ppb	0.452 ppb	-0.090 ppb
Concentration per Run 1	20.693 ppb	20.346 ppb	0.453 ppb	-0.093 ppb
Concentration per Run 2	20.889 ppb	20.334 ppb	0.450 ppb	-0.090 ppb
Concentration per Run 3	20.903 ppb	20.388 ppb	0.453 ppb	-0.089 ppb
Concentration per Run 4	20.974 ppb	20.235 ppb	0.452 ppb	-0.089 ppb
Concentration RSD	0.6 %	0.3 %	0.4 %	1.8 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 23
Analysis label: RZE-011 - 0.1mol/L KOH 1.7V vs RHE 48h 5.8ml - 97%

Analysis started at: 22-Feb-24 13:44:08
User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.676 ppb	0.750 ppb	0.752 ppb	5.184 ppb	5.734 ppb	0.252 ppb	2.081 ppb	2.182 ppb	2.345 ppb
Concentration per Run 1	0.672 ppb	0.739 ppb	0.747 ppb	5.563 ppb	5.722 ppb	0.253 ppb	2.065 ppb	2.192 ppb	2.316 ppb
Concentration per Run 2	0.677 ppb	0.748 ppb	0.748 ppb	4.981 ppb	5.712 ppb	0.250 ppb	2.080 ppb	2.116 ppb	2.322 ppb
Concentration per Run 3	0.677 ppb	0.766 ppb	0.756 ppb	5.083 ppb	5.793 ppb	0.254 ppb	2.084 ppb	2.223 ppb	2.364 ppb
Concentration per Run 4	0.678 ppb	0.748 ppb	0.757 ppb	5.110 ppb	5.711 ppb	0.250 ppb	2.093 ppb	2.198 ppb	2.377 ppb
Concentration RSD	0.4 %	1.5 %	0.7 %	5.0 %	0.7 %	0.9 %	0.6 %	2.1 %	1.3 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	34.318 ppb	32.999 ppb	0.644 ppb	-0.176 ppb
Concentration per Run 1	34.211 ppb	32.919 ppb	0.641 ppb	-0.175 ppb
Concentration per Run 2	34.210 ppb	32.865 ppb	0.641 ppb	-0.171 ppb
Concentration per Run 3	34.432 ppb	33.142 ppb	0.650 ppb	-0.179 ppb
Concentration per Run 4	34.418 ppb	33.072 ppb	0.645 ppb	-0.178 ppb
Concentration RSD	0.4 %	0.4 %	0.7 %	2.1 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 24 Analysis started at: 22-Feb-24 13:49:15
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.090 ppb	0.081 ppb	0.088 ppb	0.868 ppb	0.808 ppb	0.034 ppb	0.034 ppb	0.037 ppb	0.035 ppb
Concentration per Run 1	0.091 ppb	0.085 ppb	0.088 ppb	0.874 ppb	0.817 ppb	0.033 ppb	0.037 ppb	0.032 ppb	0.036 ppb
Concentration per Run 2	0.090 ppb	0.070 ppb	0.090 ppb	0.864 ppb	0.815 ppb	0.033 ppb	0.030 ppb	0.043 ppb	0.040 ppb
Concentration per Run 3	0.090 ppb	0.083 ppb	0.087 ppb	0.860 ppb	0.813 ppb	0.035 ppb	0.034 ppb	0.036 ppb	0.028 ppb
Concentration per Run 4	0.091 ppb	0.084 ppb	0.087 ppb	0.873 ppb	0.787 ppb	0.034 ppb	0.033 ppb	0.038 ppb	0.035 ppb
Concentration RSD	0.5 %	8.6 %	1.6 %	0.8 %	1.8 %	3.1 %	8.6 %	12.4 %	14.1 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	2.074 ppb	1.948 ppb	0.000 ppb	-0.084 ppb
Concentration per Run 1	2.095 ppb	1.978 ppb	0.000 ppb	-0.090 ppb
Concentration per Run 2	2.115 ppb	1.991 ppb	0.000 ppb	-0.078 ppb
Concentration per Run 3	2.051 ppb	1.924 ppb	0.000 ppb	-0.087 ppb
Concentration per Run 4	2.036 ppb	1.898 ppb	0.000 ppb	-0.083 ppb
Concentration RSD	1.8 %	2.3 %	194.4 %	6.0 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 25
Analysis label: RZE-021 - 0.1mol/L KOH 1.7V vs RHE 24h 1.4ml H2O compartment - 10%

Analysis started at: 22-Feb-24 13:54:22
User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.983 ppb	1.052 ppb	0.549 ppb	2.606 ppb	2.113 ppb	0.147 ppb	0.555 ppb	0.593 ppb	0.612 ppb
Concentration per Run 1	0.981 ppb	1.048 ppb	0.550 ppb	2.576 ppb	2.126 ppb	0.147 ppb	0.554 ppb	0.598 ppb	0.618 ppb
Concentration per Run 2	0.985 ppb	1.051 ppb	0.548 ppb	2.559 ppb	2.079 ppb	0.149 ppb	0.551 ppb	0.575 ppb	0.605 ppb
Concentration per Run 3	0.987 ppb	1.052 ppb	0.545 ppb	2.721 ppb	2.121 ppb	0.146 ppb	0.559 ppb	0.607 ppb	0.618 ppb
Concentration per Run 4	0.977 ppb	1.058 ppb	0.550 ppb	2.566 ppb	2.126 ppb	0.146 ppb	0.558 ppb	0.592 ppb	0.606 ppb
Concentration RSD	0.4 %	0.4 %	0.4 %	3.0 %	1.1 %	0.9 %	0.6 %	2.3 %	1.2 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	12.415 ppb	12.009 ppb	0.243 ppb	-0.076 ppb
Concentration per Run 1	12.506 ppb	12.056 ppb	0.245 ppb	-0.079 ppb
Concentration per Run 2	12.455 ppb	12.068 ppb	0.243 ppb	-0.080 ppb
Concentration per Run 3	12.361 ppb	12.021 ppb	0.241 ppb	-0.074 ppb
Concentration per Run 4	12.338 ppb	11.893 ppb	0.243 ppb	-0.070 ppb
Concentration RSD	0.6 %	0.7 %	0.6 %	6.3 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 26
Analysis label: RZE-021 - 0.1mol/L KOH 1.7V vs RHE 24h 1.4ml H2O compartment - 50%

Analysis started at: 22-Feb-24 13:59:29
User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	2.587 ppb	2.985 ppb	1.304 ppb	6.362 ppb	6.445 ppb	0.294 ppb	1.238 ppb	1.514 ppb	1.974 ppb
Concentration per Run 1	2.670 ppb	2.982 ppb	1.305 ppb	6.283 ppb	6.410 ppb	0.296 ppb	1.243 ppb	1.557 ppb	2.037 ppb
Concentration per Run 2	2.511 ppb	2.996 ppb	1.304 ppb	6.373 ppb	6.475 ppb	0.293 ppb	1.234 ppb	1.489 ppb	1.961 ppb
Concentration per Run 3	2.677 ppb	3.003 ppb	1.308 ppb	6.382 ppb	6.443 ppb	0.295 ppb	1.239 ppb	1.457 ppb	2.001 ppb
Concentration per Run 4	2.489 ppb	2.961 ppb	1.298 ppb	6.412 ppb	6.451 ppb	0.291 ppb	1.237 ppb	1.553 ppb	1.898 ppb
Concentration RSD	3.9 %	0.6 %	0.3 %	0.9 %	0.4 %	0.7 %	0.3 %	3.2 %	3.0 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	21.828 ppb	21.444 ppb	0.472 ppb	-0.157 ppb
Concentration per Run 1	21.990 ppb	21.654 ppb	0.483 ppb	-0.122 ppb
Concentration per Run 2	21.886 ppb	21.520 ppb	0.471 ppb	-0.271 ppb
Concentration per Run 3	21.772 ppb	21.348 ppb	0.469 ppb	-0.118 ppb
Concentration per Run 4	21.666 ppb	21.253 ppb	0.464 ppb	-0.119 ppb
Concentration RSD	0.6 %	0.8 %	1.7 %	48.1 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 27 Analysis started at: 22-Feb-24 14:04:37
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.080 ppb	0.071 ppb	0.072 ppb	0.890 ppb	0.811 ppb	0.070 ppb	0.044 ppb	0.053 ppb	0.045 ppb
Concentration per Run 1	0.081 ppb	0.070 ppb	0.070 ppb	0.896 ppb	0.822 ppb	0.071 ppb	0.046 ppb	0.051 ppb	0.041 ppb
Concentration per Run 2	0.081 ppb	0.072 ppb	0.073 ppb	0.906 ppb	0.803 ppb	0.069 ppb	0.045 ppb	0.036 ppb	0.044 ppb
Concentration per Run 3	0.081 ppb	0.068 ppb	0.072 ppb	0.876 ppb	0.826 ppb	0.070 ppb	0.042 ppb	0.078 ppb	0.050 ppb
Concentration per Run 4	0.078 ppb	0.075 ppb	0.073 ppb	0.879 ppb	0.793 ppb	0.070 ppb	0.045 ppb	0.049 ppb	0.048 ppb
Concentration RSD	1.9 %	3.6 %	2.2 %	1.6 %	1.9 %	0.8 %	3.5 %	33.1 %	8.7 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.750 ppb	0.708 ppb	0.000 ppb	-0.119 ppb
Concentration per Run 1	0.777 ppb	0.732 ppb	0.000 ppb	-0.114 ppb
Concentration per Run 2	0.764 ppb	0.713 ppb	0.000 ppb	-0.122 ppb
Concentration per Run 3	0.739 ppb	0.707 ppb	0.000 ppb	-0.120 ppb
Concentration per Run 4	0.719 ppb	0.681 ppb	0.000 ppb	-0.120 ppb
Concentration RSD	3.5 %	3.0 %	268.4 %	2.8 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 28 Analysis started at: 22-Feb-24 14:09:44
Analysis label: 573 Pd Sons 300µl HNO3 - 0.01% User name: THERMOF-6VBH8PN\CPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.010 ppb	0.000 ppb	0.065 ppb	0.096 ppb	0.025 ppb	0.120 ppb	0.035 ppb	0.031 ppb	0.030 ppb
Concentration per Run 1	0.010 ppb	-0.002 ppb	0.065 ppb	0.096 ppb	0.034 ppb	0.120 ppb	0.034 ppb	0.034 ppb	0.031 ppb
Concentration per Run 2	0.010 ppb	-0.001 ppb	0.066 ppb	0.095 ppb	0.014 ppb	0.121 ppb	0.036 ppb	0.031 ppb	0.032 ppb
Concentration per Run 3	0.010 ppb	0.003 ppb	0.065 ppb	0.099 ppb	0.028 ppb	0.119 ppb	0.034 ppb	0.033 ppb	0.028 ppb
Concentration per Run 4	0.011 ppb	0.001 ppb	0.063 ppb	0.094 ppb	0.024 ppb	0.119 ppb	0.034 ppb	0.028 ppb	0.030 ppb
Concentration RSD	2.6 %	1,514.5 %	1.5 %	2.0 %	34.8 %	1.1 %	3.0 %	8.4 %	5.0 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.499 ppb	0.474 ppb	0.001 ppb	62.848 ppb
Concentration per Run 1	0.520 ppb	0.500 ppb	0.001 ppb	62.883 ppb
Concentration per Run 2	0.506 ppb	0.478 ppb	0.001 ppb	62.644 ppb
Concentration per Run 3	0.484 ppb	0.464 ppb	0.001 ppb	62.826 ppb
Concentration per Run 4	0.486 ppb	0.456 ppb	0.002 ppb	63.038 ppb
Concentration RSD	3.4 %	4.1 %	18.8 %	0.3 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 29 Analysis started at: 22-Feb-24 14:14:50
Analysis label: 573 Pd Sons 300µl HNO3 - 0.1% User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.022 ppb	0.004 ppb	0.061 ppb	0.179 ppb	0.115 ppb	0.567 ppb	0.051 ppb	0.057 ppb	0.047 ppb
Concentration per Run 1	0.023 ppb	0.003 ppb	0.062 ppb	0.180 ppb	0.120 ppb	0.568 ppb	0.050 ppb	0.056 ppb	0.043 ppb
Concentration per Run 2	0.022 ppb	0.003 ppb	0.059 ppb	0.179 ppb	0.111 ppb	0.570 ppb	0.051 ppb	0.051 ppb	0.047 ppb
Concentration per Run 3	0.022 ppb	0.004 ppb	0.061 ppb	0.178 ppb	0.109 ppb	0.560 ppb	0.051 ppb	0.063 ppb	0.053 ppb
Concentration per Run 4	0.022 ppb	0.004 ppb	0.060 ppb	0.182 ppb	0.120 ppb	0.571 ppb	0.050 ppb	0.060 ppb	0.043 ppb
Concentration RSD	1.3 %	7.0 %	2.0 %	1.0 %	4.9 %	0.9 %	1.5 %	9.0 %	10.3 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.373 ppb	0.355 ppb	0.011 ppb	682.873 ppb
Concentration per Run 1	0.384 ppb	0.360 ppb	0.010 ppb	678.152 ppb
Concentration per Run 2	0.376 ppb	0.358 ppb	0.011 ppb	686.846 ppb
Concentration per Run 3	0.372 ppb	0.359 ppb	0.011 ppb	678.262 ppb
Concentration per Run 4	0.359 ppb	0.344 ppb	0.011 ppb	688.231 ppb
Concentration RSD	2.8 %	2.1 %	2.3 %	0.8 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 30 Analysis started at: 22-Feb-24 14:19:56
Analysis label: 573 Pd Sons 300µl HNO3 - 1% User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.177 ppb	0.074 ppb	0.060 ppb	0.385 ppb	0.316 ppb	5.607 ppb	0.193 ppb	0.202 ppb	0.196 ppb
Concentration per Run 1	0.180 ppb	0.078 ppb	0.061 ppb	0.389 ppb	0.302 ppb	5.629 ppb	0.189 ppb	0.216 ppb	0.206 ppb
Concentration per Run 2	0.178 ppb	0.072 ppb	0.060 ppb	0.384 ppb	0.328 ppb	5.600 ppb	0.196 ppb	0.195 ppb	0.194 ppb
Concentration per Run 3	0.177 ppb	0.075 ppb	0.061 ppb	0.385 ppb	0.319 ppb	5.621 ppb	0.195 ppb	0.200 ppb	0.200 ppb
Concentration per Run 4	0.174 ppb	0.072 ppb	0.059 ppb	0.380 ppb	0.315 ppb	5.577 ppb	0.193 ppb	0.198 ppb	0.184 ppb
Concentration RSD	1.5 %	3.5 %	1.8 %	1.0 %	3.4 %	0.4 %	1.7 %	4.7 %	4.9 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.348 ppb	0.339 ppb	0.110 ppb	7,843.177 ppb
Concentration per Run 1	0.351 ppb	0.340 ppb	0.110 ppb	7,927.405 ppb
Concentration per Run 2	0.351 ppb	0.339 ppb	0.111 ppb	7,837.774 ppb
Concentration per Run 3	0.347 ppb	0.341 ppb	0.108 ppb	7,872.929 ppb
Concentration per Run 4	0.344 ppb	0.336 ppb	0.110 ppb	7,734.602 ppb
Concentration RSD	1.0 %	0.6 %	1.1 %	1.0 %

Concentrations

23-Feb-24 17:02:01



Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 31 Analysis started at: 22-Feb-24 14:25:03
Analysis label: 573 Pd Sons 300µl HNO3 - 10% User name: THERMOF-6VBH8PN\CPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	1.409 ppb	0.500 ppb	0.070 ppb	1.414 ppb	1.523 ppb	36.409 ppb	1.001 ppb	1.005 ppb	1.007 ppb
Concentration per Run 1	1.450 ppb	0.515 ppb	0.069 ppb	1.415 ppb	1.529 ppb	36.677 ppb	0.998 ppb	1.010 ppb	1.004 ppb
Concentration per Run 2	1.411 ppb	0.499 ppb	0.070 ppb	1.415 ppb	1.548 ppb	36.565 ppb	1.007 ppb	1.009 ppb	0.992 ppb
Concentration per Run 3	1.395 ppb	0.503 ppb	0.070 ppb	1.417 ppb	1.515 ppb	36.277 ppb	1.005 ppb	1.008 ppb	0.989 ppb
Concentration per Run 4	1.382 ppb	0.485 ppb	0.070 ppb	1.412 ppb	1.499 ppb	36.117 ppb	0.993 ppb	0.995 ppb	1.044 ppb
Concentration RSD	2.1 %	2.5 %	0.9 %	0.2 %	1.4 %	0.7 %	0.6 %	0.7 %	2.5 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.800 ppb	0.782 ppb	0.617 ppb	49,674.243 ppb
Concentration per Run 1	0.802 ppb	0.789 ppb	0.620 ppb	49,778.042 ppb
Concentration per Run 2	0.806 ppb	0.787 ppb	0.619 ppb	49,928.160 ppb
Concentration per Run 3	0.796 ppb	0.775 ppb	0.612 ppb	49,491.998 ppb
Concentration per Run 4	0.795 ppb	0.778 ppb	0.616 ppb	49,498.773 ppb
Concentration RSD	0.6 %	0.9 %	0.6 %	0.4 %

Concentrations

23-Feb-24 17:02:01



Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 32 Analysis started at: 22-Feb-24 14:30:10
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.095 ppb	0.060 ppb	0.056 ppb	0.687 ppb	0.658 ppb	0.065 ppb	0.069 ppb	0.069 ppb	0.065 ppb
Concentration per Run 1	0.103 ppb	0.063 ppb	0.055 ppb	0.704 ppb	0.675 ppb	0.063 ppb	0.067 ppb	0.063 ppb	0.071 ppb
Concentration per Run 2	0.096 ppb	0.059 ppb	0.057 ppb	0.692 ppb	0.631 ppb	0.066 ppb	0.070 ppb	0.077 ppb	0.059 ppb
Concentration per Run 3	0.091 ppb	0.055 ppb	0.056 ppb	0.673 ppb	0.657 ppb	0.065 ppb	0.068 ppb	0.069 ppb	0.065 ppb
Concentration per Run 4	0.088 ppb	0.064 ppb	0.056 ppb	0.680 ppb	0.670 ppb	0.066 ppb	0.069 ppb	0.067 ppb	0.067 ppb
Concentration RSD	7.0 %	7.0 %	1.1 %	2.0 %	3.0 %	1.9 %	1.9 %	8.5 %	7.3 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.148 ppb	0.144 ppb	0.000 ppb	5.908 ppb
Concentration per Run 1	0.152 ppb	0.146 ppb	0.000 ppb	6.512 ppb
Concentration per Run 2	0.149 ppb	0.144 ppb	0.000 ppb	6.103 ppb
Concentration per Run 3	0.146 ppb	0.142 ppb	0.000 ppb	5.659 ppb
Concentration per Run 4	0.145 ppb	0.142 ppb	0.000 ppb	5.357 ppb
Concentration RSD	2.1 %	1.4 %	33.7 %	8.6 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 33 Analysis started at: 22-Feb-24 14:35:17
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.064 ppb	0.053 ppb	0.050 ppb	0.637 ppb	0.628 ppb	0.076 ppb	0.096 ppb	0.101 ppb	0.089 ppb
Concentration per Run 1	0.064 ppb	0.056 ppb	0.049 ppb	0.647 ppb	0.636 ppb	0.074 ppb	0.099 ppb	0.111 ppb	0.089 ppb
Concentration per Run 2	0.064 ppb	0.052 ppb	0.052 ppb	0.636 ppb	0.623 ppb	0.077 ppb	0.095 ppb	0.093 ppb	0.089 ppb
Concentration per Run 3	0.065 ppb	0.052 ppb	0.050 ppb	0.635 ppb	0.632 ppb	0.075 ppb	0.094 ppb	0.101 ppb	0.089 ppb
Concentration per Run 4	0.064 ppb	0.051 ppb	0.050 ppb	0.629 ppb	0.622 ppb	0.077 ppb	0.096 ppb	0.100 ppb	0.087 ppb
Concentration RSD	0.6 %	4.2 %	2.2 %	1.2 %	1.1 %	1.9 %	2.1 %	7.2 %	1.1 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.117 ppb	0.112 ppb	0.000 ppb	1.500 ppb
Concentration per Run 1	0.119 ppb	0.114 ppb	0.000 ppb	1.392 ppb
Concentration per Run 2	0.119 ppb	0.111 ppb	0.000 ppb	1.477 ppb
Concentration per Run 3	0.115 ppb	0.113 ppb	0.000 ppb	1.546 ppb
Concentration per Run 4	0.114 ppb	0.109 ppb	0.000 ppb	1.583 ppb
Concentration RSD	2.3 %	2.1 %	39.1 %	5.6 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 34 Analysis started at: 22-Feb-24 14:40:24
Analysis label: BL 572 - 573 User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.007 ppb	-0.003 ppb	0.041 ppb	0.028 ppb	0.021 ppb	0.084 ppb	0.116 ppb	0.118 ppb	0.114 ppb
Concentration per Run 1	0.007 ppb	-0.001 ppb	0.041 ppb	0.028 ppb	0.023 ppb	0.085 ppb	0.115 ppb	0.118 ppb	0.110 ppb
Concentration per Run 2	0.007 ppb	-0.003 ppb	0.042 ppb	0.030 ppb	0.024 ppb	0.085 ppb	0.118 ppb	0.110 ppb	0.113 ppb
Concentration per Run 3	0.006 ppb	-0.003 ppb	0.041 ppb	0.027 ppb	0.028 ppb	0.084 ppb	0.117 ppb	0.115 ppb	0.118 ppb
Concentration per Run 4	0.007 ppb	-0.004 ppb	0.040 ppb	0.026 ppb	0.010 ppb	0.084 ppb	0.114 ppb	0.130 ppb	0.117 ppb
Concentration RSD	3.9 %	36.1 %	1.4 %	6.2 %	36.5 %	0.9 %	1.5 %	7.3 %	3.1 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.107 ppb	0.103 ppb	0.000 ppb	1.128 ppb
Concentration per Run 1	0.111 ppb	0.104 ppb	0.000 ppb	1.042 ppb
Concentration per Run 2	0.105 ppb	0.103 ppb	0.000 ppb	1.106 ppb
Concentration per Run 3	0.105 ppb	0.104 ppb	0.000 ppb	1.171 ppb
Concentration per Run 4	0.106 ppb	0.101 ppb	0.000 ppb	1.192 ppb
Concentration RSD	2.5 %	1.3 %	46.1 %	6.0 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 35 Analysis started at: 22-Feb-24 14:45:32
Analysis label: BL 573 User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.004 ppb	-0.005 ppb	0.036 ppb	0.011 ppb	0.001 ppb	0.086 ppb	0.132 ppb	0.138 ppb	0.131 ppb
Concentration per Run 1	0.004 ppb	-0.003 ppb	0.036 ppb	0.011 ppb	-0.007 ppb	0.086 ppb	0.132 ppb	0.136 ppb	0.130 ppb
Concentration per Run 2	0.004 ppb	-0.005 ppb	0.036 ppb	0.013 ppb	0.008 ppb	0.086 ppb	0.128 ppb	0.131 ppb	0.133 ppb
Concentration per Run 3	0.005 ppb	-0.005 ppb	0.035 ppb	0.010 ppb	0.004 ppb	0.084 ppb	0.133 ppb	0.124 ppb	0.130 ppb
Concentration per Run 4	0.004 ppb	-0.005 ppb	0.035 ppb	0.010 ppb	-0.002 ppb	0.086 ppb	0.134 ppb	0.160 ppb	0.130 ppb
Concentration RSD	15.2 %	20.1 %	1.2 %	13.1 %	933.7 %	1.0 %	1.8 %	11.2 %	1.4 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.074 ppb	0.069 ppb	0.000 ppb	0.741 ppb
Concentration per Run 1	0.076 ppb	0.075 ppb	0.000 ppb	0.650 ppb
Concentration per Run 2	0.075 ppb	0.070 ppb	0.000 ppb	0.727 ppb
Concentration per Run 3	0.072 ppb	0.067 ppb	0.000 ppb	0.768 ppb
Concentration per Run 4	0.072 ppb	0.064 ppb	0.000 ppb	0.819 ppb
Concentration RSD	2.7 %	6.6 %	20.2 %	9.7 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 36 Analysis started at: 22-Feb-24 14:50:40
Analysis label: BL H2O User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.002 ppb	-0.006 ppb	0.032 ppb	-0.034 ppb	-0.033 ppb	0.091 ppb	0.156 ppb	0.160 ppb	0.139 ppb
Concentration per Run 1	0.003 ppb	-0.006 ppb	0.031 ppb	-0.035 ppb	-0.032 ppb	0.089 ppb	0.156 ppb	0.165 ppb	0.131 ppb
Concentration per Run 2	0.002 ppb	-0.006 ppb	0.032 ppb	-0.035 ppb	-0.032 ppb	0.091 ppb	0.150 ppb	0.156 ppb	0.140 ppb
Concentration per Run 3	0.002 ppb	-0.006 ppb	0.032 ppb	-0.034 ppb	-0.031 ppb	0.091 ppb	0.160 ppb	0.149 ppb	0.136 ppb
Concentration per Run 4	0.002 ppb	-0.007 ppb	0.033 ppb	-0.033 ppb	-0.039 ppb	0.092 ppb	0.157 ppb	0.168 ppb	0.147 ppb
Concentration RSD	10.3 %	6.4 %	2.2 %	2.9 %	10.7 %	1.3 %	2.6 %	5.4 %	4.8 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.053 ppb	0.050 ppb	0.000 ppb	-0.174 ppb
Concentration per Run 1	0.054 ppb	0.050 ppb	0.000 ppb	-0.174 ppb
Concentration per Run 2	0.053 ppb	0.051 ppb	0.000 ppb	-0.174 ppb
Concentration per Run 3	0.053 ppb	0.048 ppb	0.000 ppb	-0.173 ppb
Concentration per Run 4	0.053 ppb	0.049 ppb	0.000 ppb	-0.174 ppb
Concentration RSD	0.7 %	3.2 %	173.1 %	0.5 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 37 Analysis started at: 22-Feb-24 14:55:46
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.060 ppb	0.051 ppb	0.033 ppb	0.616 ppb	0.629 ppb	0.087 ppb	0.176 ppb	0.181 ppb	0.172 ppb
Concentration per Run 1	0.060 ppb	0.049 ppb	0.033 ppb	0.618 ppb	0.617 ppb	0.087 ppb	0.176 ppb	0.177 ppb	0.170 ppb
Concentration per Run 2	0.060 ppb	0.051 ppb	0.033 ppb	0.616 ppb	0.612 ppb	0.087 ppb	0.172 ppb	0.197 ppb	0.165 ppb
Concentration per Run 3	0.060 ppb	0.054 ppb	0.032 ppb	0.612 ppb	0.631 ppb	0.090 ppb	0.177 ppb	0.176 ppb	0.172 ppb
Concentration per Run 4	0.060 ppb	0.051 ppb	0.033 ppb	0.617 ppb	0.655 ppb	0.086 ppb	0.177 ppb	0.175 ppb	0.181 ppb
Concentration RSD	0.3 %	4.1 %	1.7 %	0.4 %	3.0 %	1.7 %	1.2 %	5.9 %	3.9 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.064 ppb	0.061 ppb	0.000 ppb	0.361 ppb
Concentration per Run 1	0.063 ppb	0.060 ppb	0.000 ppb	0.342 ppb
Concentration per Run 2	0.065 ppb	0.061 ppb	0.000 ppb	0.351 ppb
Concentration per Run 3	0.063 ppb	0.061 ppb	0.000 ppb	0.372 ppb
Concentration per Run 4	0.064 ppb	0.061 ppb	0.000 ppb	0.380 ppb
Concentration RSD	1.4 %	0.8 %	91.3 %	4.9 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 38 Analysis started at: 22-Feb-24 15:00:53
Analysis label: M42 10 ppb 1500µL HNO3 16.02.2024 mtr User name: THERMOF-6VBH8PN\ICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	9.842 ppb	9.933 ppb	9.854 ppb	9.770 ppb	10.027 ppb	9.792 ppb	9.955 ppb	10.036 ppb	9.976 ppb
Concentration per Run 1	9.853 ppb	10.050 ppb	9.896 ppb	9.857 ppb	10.190 ppb	9.804 ppb	10.047 ppb	10.126 ppb	10.077 ppb
Concentration per Run 2	9.896 ppb	9.876 ppb	9.872 ppb	9.737 ppb	10.023 ppb	9.853 ppb	9.977 ppb	10.142 ppb	10.084 ppb
Concentration per Run 3	9.713 ppb	9.851 ppb	9.780 ppb	9.678 ppb	9.916 ppb	9.729 ppb	9.819 ppb	9.911 ppb	9.883 ppb
Concentration per Run 4	9.904 ppb	9.956 ppb	9.867 ppb	9.810 ppb	9.978 ppb	9.782 ppb	9.979 ppb	9.966 ppb	9.859 ppb
Concentration RSD	0.9 %	0.9 %	0.5 %	0.8 %	1.2 %	0.5 %	1.0 %	1.2 %	1.2 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	9.966 ppb	9.963 ppb	9.694 ppb	7.938 ppb
Concentration per Run 1	10.057 ppb	10.053 ppb	9.778 ppb	7.904 ppb
Concentration per Run 2	9.954 ppb	10.023 ppb	9.641 ppb	7.962 ppb
Concentration per Run 3	9.882 ppb	9.838 ppb	9.633 ppb	7.919 ppb
Concentration per Run 4	9.973 ppb	9.939 ppb	9.723 ppb	7.968 ppb
Concentration RSD	0.7 %	1.0 %	0.7 %	0.4 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 39 Analysis started at: 22-Feb-24 15:06:03
Analysis label: Rinse HNO3 2% User name: THERMOF-6VBH8PNICPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.051 ppb	0.041 ppb	0.023 ppb	0.493 ppb	0.524 ppb	0.072 ppb	0.171 ppb	0.174 ppb	0.163 ppb
Concentration per Run 1	0.050 ppb	0.036 ppb	0.023 ppb	0.479 ppb	0.529 ppb	0.074 ppb	0.172 ppb	0.170 ppb	0.170 ppb
Concentration per Run 2	0.053 ppb	0.046 ppb	0.023 ppb	0.496 ppb	0.508 ppb	0.072 ppb	0.172 ppb	0.174 ppb	0.160 ppb
Concentration per Run 3	0.050 ppb	0.042 ppb	0.024 ppb	0.498 ppb	0.525 ppb	0.073 ppb	0.167 ppb	0.176 ppb	0.158 ppb
Concentration per Run 4	0.051 ppb	0.039 ppb	0.023 ppb	0.498 ppb	0.536 ppb	0.071 ppb	0.173 ppb	0.174 ppb	0.165 ppb
Concentration RSD	2.4 %	9.9 %	1.6 %	1.9 %	2.3 %	1.9 %	1.5 %	1.4 %	3.3 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.046 ppb	0.044 ppb	0.000 ppb	0.304 ppb
Concentration per Run 1	0.046 ppb	0.045 ppb	0.000 ppb	0.289 ppb
Concentration per Run 2	0.047 ppb	0.044 ppb	0.000 ppb	0.294 ppb
Concentration per Run 3	0.046 ppb	0.043 ppb	0.000 ppb	0.310 ppb
Concentration per Run 4	0.046 ppb	0.043 ppb	0.000 ppb	0.325 ppb
Concentration RSD	0.8 %	1.9 %	134.6 %	5.3 %

Concentrations

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Instrument Name	Serial Number
iCAP RQ	Undefined

LabBook	LabBook Path
2024_02_22_M28RuPdRe_Ridha_Poettker-Menke_Sons-goe_mtr.imexp	_Application Data\Workspace\LabBooks

Analysis index: 40 Analysis started at: 22-Feb-24 15:11:10
Analysis label: pure water User name: THERMOF-6VBH8PN\CPMS-User

Category	52Cr (mp_KED)	53Cr (mp_KED)	55Mn (mp_KED)	56Fe (mp_KED)	57Fe (mp_KED)	59Co (mp_KED)	60Ni (mp_KED)	61Ni (mp_KED)	62Ni (mp_KED)
Concentration average	0.004 ppb	-0.005 ppb	0.041 ppb	-0.050 ppb	-0.038 ppb	0.074 ppb	0.534 ppb	0.537 ppb	0.524 ppb
Concentration per Run 1	0.004 ppb	-0.004 ppb	0.039 ppb	-0.051 ppb	-0.031 ppb	0.075 ppb	0.493 ppb	0.509 ppb	0.494 ppb
Concentration per Run 2	0.003 ppb	-0.005 ppb	0.039 ppb	-0.050 ppb	-0.036 ppb	0.074 ppb	0.503 ppb	0.478 ppb	0.484 ppb
Concentration per Run 3	0.004 ppb	-0.007 ppb	0.041 ppb	-0.048 ppb	-0.043 ppb	0.073 ppb	0.535 ppb	0.561 ppb	0.538 ppb
Concentration per Run 4	0.004 ppb	-0.005 ppb	0.046 ppb	-0.050 ppb	-0.042 ppb	0.075 ppb	0.607 ppb	0.599 ppb	0.582 ppb
Concentration RSD	5.9 %	24.9 %	8.0 %	2.2 %	15.1 %	1.1 %	9.6 %	10.0 %	8.6 %

Category	63Cu (mp_KED)	65Cu (mp_KED)	88Sr (mp_KED)	105Pd (mp_KED)
Concentration average	0.159 ppb	0.157 ppb	0.017 ppb	-0.203 ppb
Concentration per Run 1	0.150 ppb	0.145 ppb	0.017 ppb	-0.312 ppb
Concentration per Run 2	0.150 ppb	0.149 ppb	0.016 ppb	-0.163 ppb
Concentration per Run 3	0.159 ppb	0.160 ppb	0.017 ppb	-0.168 ppb
Concentration per Run 4	0.179 ppb	0.175 ppb	0.020 ppb	-0.168 ppb
Concentration RSD	8.7 %	8.5 %	10.4 %	36.1 %

Concentrations

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