

From Page No.

CAMP
21466
Int. 8.07RJN12Apr24
 $\lambda = 398 \checkmark$
SJR = 65832 \checkmark Rutest: Roman RJN12Apr24 (Co)
2 (nm): 397.5
Isotera: 3046
Is intensity: 248RU test: DI DIR512Apr24 (Co)
2 (nm): 397.5
Isotera: 3055
Is (intensity): 251

% diff - 0.29

Quinine Sulfate QSL12Apr24 QSL12Apr24, blank

QJU adjust: 60 62060

Blanks

0.15 DI12Apr24ols. blank

Forgot to add dj to the end "12Apr24"

exceeded 50,000 COUNTS

Recorded by:
CODate
4/12/24

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Sample	Int	excitation	abs	Dilution
Pre12Apr24	0.1	0.171	N/A	
TMPIJ.1.0.1	0.1	739	0.00198	N/A
TMPIJ.1.1.2	2	966	0.00187	N/A
TMPIJ.1.2.0	0.1	732	1.80	N/A
TMPIJ.1.2.1	15	9482	0.3	0.5 mL sample 0.5 mL milli
TMPIJ.1.2.2	25	18189	0.29	0.5 mL sample 2.5 mL milli
TMPIJ.3.0.1	0.1	739	1.68	N/A
TMPIJ.3.0.2	2	9570	0.27	0.530 mL sample 0.470 mL milli
TMPIJ.3.4.0	4	22K	0.30	0.530 mL sample 0.470 mL milli
TMPIJ.4.0.1	0.1	741	1.23	N/A
TMPIJ.4.0.2	24	22K	0.30	0.730 mL sample 0.277 mL milli
TMPIJ.5.0.1	0.1	734	1.20	N/A
TMPIJ.5.0.2	2	9576	0.30	0.735 mL sample 0.285 mL milli
TMPIJ.6.0.1	0.1	732	1.04	N/A
TMPIJ.6.2.0	2	9573	0.30	0.870 mL sample 0.213 mL milli
TMPIJ.7.0.1	0.1	733	1.05	N/A
TMPIJ.7.2.0	2	9577	0.32	0.850 mL sample 0.2150 mL milli
TMPIJ.8.0.1	0.1	733	0.006	N/A

Sample	Int	excitation	abs	Dilution
TMPIJ.9.0.1	2	959	0.005	N/A
TMPIJ.9.0.2	0.1	719	1.13	N/A
TMPIJ.9.2.0	2	18K	0.29	0.1800 mL sample 0.212 mL milli
TMPIJ.10.0.0	0.1	736	2.20	N/A
TMPIJ.10.2.0	2	9575	0.29	0.100 mL sample 0.250 mL milli
TMPIJ.11.0.1	0.1	735	1.78	N/A
TMPIJ.11.2.0	2	9572	0.30	0.510 sample 0.479 mL milli
TMPIJ.12.0.0	0.1	725	1.46	N/A
TMPIJ.12.2.0	2	9568	0.28	0.620 mL sample 0.238 mL milli
TMPIJ.13.0.0	0.1	728	0.98	N/A
TMPIJ.13.2.0	2	9570	0.30	0.920 mL sample 0.208 mL milli
TMPIJ.14.0.1	0.1	723	0.90	N/A
TMPIJ.14.2.0	2	9575	0.29	1 mL sample 0.2 mL milli
TMPIJ.15.0.1	0.1	730	0.00175	N/A
TMPIJ.15.2.0	2	955	0.0018	N/A
TMPIJ.16.0.1	0.1	722	0.43	N/A
TMPIJ.16.2.0	2	13K	0.29	0.09 mL sample 0.090 mL milli
TMPIJ.17.0.0	0.1	728	2.31	N/A
TMPIJ.17.2.0	2	9557	0.25	0.390 mL sample 0.261 mL milli
TMPIJ.18.0.1	0.1	731	2.50	N/A
TMPIJ.18.2.0	2	9568	0.30	0.36 mL sample 0.246 mL milli
TMPIJ.19.0.1	0.1	727	2.03	N/A
TMPIJ.19.2.0	2	9565	0.29	0.450 mL sample 0.355 mL milli
TMPIJ.20.0.1	0.1	730	1.69	N/A
TMPIJ.20.2.0	2	9573	0.30	0.540 mL sample 0.2460 mL milli

Sample	Int	excitation	abs	Date	To Page No.
TMPIJ.9.0.1	2	959	0.005	N/A	
TMPIJ.9.0.2	0.1	719	1.13	N/A	
TMPIJ.9.2.0	2	18K	0.29	0.1800 mL sample 0.212 mL milli	
TMPIJ.10.0.0	0.1	736	2.20	N/A	
TMPIJ.10.2.0	2	9575	0.29	0.100 mL sample 0.250 mL milli	
TMPIJ.11.0.1	0.1	735	1.78	N/A	
TMPIJ.11.2.0	2	9572	0.30	0.510 sample 0.479 mL milli	
TMPIJ.12.0.0	0.1	725	1.46	N/A	
TMPIJ.12.2.0	2	9568	0.28	0.620 mL sample 0.238 mL milli	
TMPIJ.13.0.0	0.1	728	0.98	N/A	
TMPIJ.13.2.0	2	9570	0.30	0.920 mL sample 0.208 mL milli	
TMPIJ.14.0.1	0.1	723	0.90	N/A	
TMPIJ.14.2.0	2	9575	0.29	1 mL sample 0.2 mL milli	
TMPIJ.15.0.1	0.1	730	0.00175	N/A	
TMPIJ.15.2.0	2	955	0.0018	N/A	
TMPIJ.16.0.1	0.1	722	0.43	N/A	
TMPIJ.16.2.0	2	13K	0.29	0.09 mL sample 0.090 mL milli	
TMPIJ.17.0.0	0.1	728	2.31	N/A	
TMPIJ.17.2.0	2	9557	0.25	0.390 mL sample 0.261 mL milli	
TMPIJ.18.0.1	0.1	731	2.50	N/A	
TMPIJ.18.2.0	2	9568	0.30	0.36 mL sample 0.246 mL milli	
TMPIJ.19.0.1	0.1	727	2.03	N/A	
TMPIJ.19.2.0	2	9565	0.29	0.450 mL sample 0.355 mL milli	
TMPIJ.20.0.1	0.1	730	1.69	N/A	
TMPIJ.20.2.0	2	9573	0.30	0.540 mL sample 0.2460 mL milli	

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Dilution calculation

Jampt

abs @ 254

$$\frac{1.46}{0.3} \approx 4.86$$

Ratio

$$3 \text{ mL} \\ 4.86 = 0.620 \text{ mL}$$

- When in doubt, round dilution volume up to stay under 0.3

"jet # refers to project #

J0 set 7 iJ
12Apr24-TMP-IJ-Je7

sample	int	excitation	abs	Date	To Page No.
post12Apr24ols	0.1	0.17	0.17	4/12/24	

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4/12/24

Verified by:

Date

Recorded by:

CO

Date

4/12/24

Verified by:

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 Lamp $\lambda = 467$ $\nu = 8.21558$

RSN16Apr24
 λ (nm): 389.5

SNR: ~~6823.8~~ 6823.8 PBR

\pm 6
 λ (nm): 398

SNR: 8104.2
 \checkmark pass

RUHeat: Rawan RSN16Apr24

λ (nm): 398

Is (area): 2791

Is (intensity): 244

RUHeat: DI DRS16Apr24

λ (nm): 397.5

Is (area): 3008

Is (intensity): 244

λ difference = 0.5%

Quinine Sulfate

QSL16Apr24 QSL16Apr24 blank

QSU Adjust (Is) = 61182

DI Blanks

0.1s Blank DIB16Apr24 0.1s. blank

1s DIB16Apr24 1s. blank

2s DIB16Apr24 2s. blank

4s DIB16Apr24 4s. blank

Set	Sample	Int. time(s)	excitators	Abs ²⁹⁴	dilution
set 1	preTPI16Apr24-1s	1		0.172	N/A
	TMPIS 21-01s	0.1		0.267	0.5ml sample
	TMPIS 21-2s	2	9580	0.266	2.5ml DI
	TMPIS 23-01s	0.1		0.018	0.5ml sample
					2.5ml DI
	TMPIS 23-2.01s	0.1	2584	0.114	No dil.
	TMPIS 23-1s	1	14K	0.114	No dil.
	TMPIS 24-01s	0.1		0.418	0.5ml sample
					2.5ml DI
set 2	TMPIS 24-2s	2		0.305	0.36 ml sample
					2.6ml DI
	TMPIS 25-01s	0.1		0.619	0.5ml sample
					2.5ml DI
	TMPIS 25-2s	2	9567	0.298	0.14ml sample
					2.7ml DI
set 3	TMPIS 26-01s	0.1		0.514	0.5ml sample
					2.5ml DI
	TMPIS 26-2s	2	9571	0.287	0.29ml sample
					2.7ml DI
	TMPIS 27-01s	0.1	775	0.333	0.5ml sample
					2.5ml DI
	TMPIS 27-2s	2	9576	0.299	0.45ml sample
					2.7ml DI
set 4	TMPIS 28-01s	0.1		0.273	0.5ml sample
					2.5ml DI
	TMPIS 28-2s	2	9579	0.274	0.5ml sample
					2.5ml DI
	TMPIS 29-01s	0.1	1034	0.017	0.5ml sample
					2.5ml DI
	TMPIS 29-2s	2		0.103	No dil.
	TMPIS 30-01s	0.1		0.223	0.5ml sample
					2.5ml DI
	TMPIS 31-01s	0.1	727	0.223	0.5ml sample
					2.5ml DI
	TMPIS 31-2s	2	9560	0.242	0.5ml sample
					2.5ml DI
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Set #	Sample	Int. time(s)	excitators	Abs ²⁹⁴	dilution
Set 5	TMPIS32 01s	0.1	730	0.298	0.5ml sample
					2.5ml DI
	TMPIS32 2s	2	9575	0.2919	0.65ml sample
					2.83ml DI
	TMPIS33 01s	0.1	734	0.660	0.5ml sample
					2.5ml DI
	TMPIS33 2s	2	9564	0.304	0.20ml sample
					2.77ml DI
Set 6	TMPIS34 01s	0.1	733	0.517	0.5ml sample
					2.5ml DI
	TMPIS34 2s	2		0.299	0.290ml sample
					2.710ml DI
	DFT16Apr24 1s	1		0.176	N/A
	TMPIS35 01s	0.1	748	0.275	0.5ml sample
					2.5ml DI
	TMPIS35 2s	2	9563	0.298	0.4ml sample
					2.6ml DI
	DFT16Apr24 1s (cont)	1		0.173	N/A

$$0.5\text{ml sample} = \frac{0.5\text{ml}}{3\text{ml}} = 0.167$$

Sample abs
with 0.5ml sample

$$\frac{1}{0.3} = 3.33$$

$$\frac{0.5\text{ml}}{3.33} = 0.15 \text{ ml sample.}$$

$$\rightarrow 0.15$$

$$\frac{0.5\text{ml}}{3.33} = 0.15 \text{ ml sample.}$$

$$\frac{0.5\text{ml}}{X} = 0.15$$

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Lamp $\lambda: 467$ $y=8.27151$

RSN 17 Apr 24

 $\lambda(\text{nm}) = 398.0$ ✓

SNR: 78678 ✓

RU-test: Rawan RS 17 Apr 24

 $\lambda(\text{nm}) = 398$ (L_c (Intensity)) = 243(L_c (Area)) = 2004

RU-test: DI DIRS 17 Apr 24

 $\lambda(\text{nm}) = 398$ (L_c (Area)) = 246(L_c (Intensity)) = 2997

% difference = 0.2%

Quinine Sulfate

QSI 17 Apr 24 QSB 17 Apr 24, blank

QSV Adjust (L_c) = 59963

DI blanks

Identifier file →

0 ls DI 17 Apr 24 0 ls DIRBlank 17 Apr 24 -0 ls blank

1 s DI 17 Apr 24 1 s DI Blank 17 Apr 24 -1 s blank

2 s DI 17 Apr 24 2 s DI Blank 17 Apr 24 -2 s blank

4 s DI 17 Apr 24 4 s DI Blank 17 Apr 24 -4 s blank

Project	sample	Int. time(s)	excitations	abs	dilution
Set 1	DIRTemp 14 ls	1	1072	0.174 N/A	
	TMPI 37.0 ls	0.1		0.018 0.5ml sample 2.5ml DI	
	TMPI 37.2 0 ls	0.1	2K	0.156 no del.	
	TMPI 37.1 s	1	16K	0.155 no del.	
	TMPI 38.0 ls	0.1	724	0.04 0.5ml sample 2.5ml DI	
Set 2	TMPI 38.2 0 ls	0.1	2266	0.243 no del.	
	TMPI 38.1 s	1	18K	0.242 no del.	
	TMPI 39.0 ls	0.1	738	1.09 0.5ml sample 2.5ml DI	
	TMPI 39.2 s	2	9573	0.285 0.5ml sample 2.5ml DI	
Set 3	TMPI 40.0 ls	0.1	5044	0.944 0.5ml sample 2.5ml DI	
	TMPI 40.2 s	2	9578	0.296 0.5ml sample 2.5ml DI	
	TMPI 41.0 ls	0.1		0.558 0.5ml sample 2.5ml DI	
	TMPI 41.2 s	2	9572	0.301 0.269 ml sample 2.731 ml DI	
	TMPI 42.0 ls	0.1	5052	0.401 0.5ml sample 2.5ml DI	
	TMPI 42.2 s	2	9567	0.305 0.313 ml sample 2.687 ml DI	
	DIR 18 Apr 24 ls	1		0.176 N/A	

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JK

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From Page No. Lamp $\lambda: 467$ $y=8.30524$

RSN 18 Apr 24

 $\lambda(\text{nm}) = 398.0$ ✓

SNR: 56560 ✓

Project	Sample	Int. time(s)	excitations	abs	dilution
Set 1	DIR 18 Apr 24 1s	1		0.173	N/A
	SUP 0 ls	0.1	9134	0.327	N/A
	SUP 4 s	4	65K	0.245	2.76ml sample
	SUP 2 s	2	65K	0.301	0.24 ml DI
Expt: P	* SUP 2 s				
	Algae 0 ls	0.1	17K	1.303	N/A
	* Algae 1 s	1	65K	0.308	0.69 ml sample 2.31 ml DI
	DIR 18 Apr 24 1s	1		0.125	N/A

RU-test: DI DIR 18 Apr 24

 $\lambda(\text{nm}) = 398$ (L_c (Intensity)) = 244(L_c (Area)) = 2998

Y diff: 0.5%

Quinine Sulfate QSB 18 Apr 24, blank
QSV Adjust (L_c) = 59484

DI blanks

Identifier	file
0 ls DI 18 Apr 24 0 ls	DIRBlank 18 Apr 24 -0 ls.blank
1 s DI 18 Apr 24 1 s	DIRBlank 18 Apr 24 -1 s.blank
2 s DI 18 Apr 24 2 s	" " 2 s "
4 s DI 18 Apr 24 4 s	" " 4 s "

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