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Magnitude Scales for Marsquakes Calibrated from InSight Data

Maren Böse, Simon Stähler, Nicholas Deichmann, Domenico Giardini, John Clinton, Philippe Lognonné, Savas Ceylan, Martin van Driel, Constantinos Charalambous, Nikolaj Dahmen, et al.

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1 **Supplementary Material**

2

3 **Magnitude Scales for Marsquakes Calibrated from InSight Data**

4 Böse, M., S. Stähler, N. Deichmann, D. Giardini, J. Clinton, P. Lognonné, S. Ceylan, M. van Driel, C. Charalambous, N. Dahmen, A. Horleston, T. Kawamura, A. Khan, M.

5 Knapmeyer, G. Orhand-Mainsant, J.-R. Scholz, F. Euchner, B.W. Banerdt

6

7 This file contains source parameters of marsquakes as provided in the InSight catalog v.5 (until 2020/10/12) of the InSight Marsquake Service (2021), as well as time-domain

8 and spectral amplitudes, spectral fitting parameters and magnitudes as computed in this article.

9

10 **References**

11 InSight Marsquake Service (2021). Mars Seismic Catalogue, InSight Mission; V5 2021-01-04. ETHZ, IPGP, JPL, ICL, MPS, Univ. Bristol. <https://doi.org/10.12686/a10>.

12 **Table S1.**

13 Type, quality, distance, amplitudes (time-domain body-wave A_P and A_S ; time-domain 2.4 resonance $A_{2.4,pick}$ and spectral-domain A_0 and $A_{2.4,spec}$), signal-to-noise ratio
 14 (SNR), SNR type (P/S wave, frequency band), spectral fitting parameter t^* , magnitudes (m_b^{Ma} , m_{bS}^{Ma} , $M_{2.4,pick}^{Ma}$, $M_{2.4,spec}^{Ma}$, $M_{W,spec}^{Ma}$, M_W^{Ma}), magnitude uncertainty (standard
 15 deviation, σ_M), and seismic moment (M_0) of 279 events (with distance estimates) in the InSight catalog v.5. The preferred magnitude, M_W^{Ma} , is $M_{W,spec}^{Ma}$ for *LF*, *BB*, and *HF*
 16 events, and $M_{2.4,spec}^{Ma}$ for *VF* and *2.4Hz* events.

17

18 **Low-frequency event family**

type	event	quality	distance [o]	distance unc. [o]	A_P [m]	A_S [m]	A_0 [m/vHz]	SNR	SNR type	t^* [s]	m_b^{Ma}	m_{bS}^{Ma}	$M_{W,spec}^{Ma}$	M_W^{Ma}	σ_M	M_0
LF	S0105a	C	29.6	8.9	1.97E-10	4.65E-10	2.61E-10	10.0	(S,2-5s)	0.9	3.2	3.2	3.0	3.0	0.5	1.24E+11
LF	S0167a	C	95.3	23.8	7.46E-11	1.97E-10	8.15E-10	8.6	(S,2-5s)	4.4	3.1	3.3	3.7	3.7	0.5	3.47E+11
LF	S0173a	A	27.9	1.6	1.27E-09	2.03E-09	3.01E-09	91.3	(S,2-5s)	2.1	4.0	3.8	3.7	3.7	0.4	3.59E+11
LF	S0183a	B	44.5	17.6	2.56E-10	-	2.62E-10	3.2	(S,2-5s)	2.9	3.4	-	3.1	3.1	0.4	1.49E+11
LF	S0189a	B	35.0	8.6	7.58E-11	1.23E-10	1.37E-10	3.9	(S,2-5s)	1.5	2.8	2.7	2.9	2.9	0.4	1.01E+11
LF	S0226b	C	94.1	23.5	8.16E-11	2.09E-10	1.62E-10	2.7	(S,2-5s)	2.2	3.2	3.3	3.2	3.2	0.5	1.68E+11
LF	S0234c	D	71.1	17.8	9.06E-11	1.95E-10	8.74E-11	0.9	(S,2-5s)	1.4	3.1	3.2	2.9	2.9	0.4	1.13E+11
LF	S0254b	D	89.5	22.4	9.27E-11	9.10E-11	3.51E-11	1.5	(P,2-5s)	0.4	3.2	3.0	2.7	2.7	0.4	8.34E+10
LF	S0290b	B	28.8	9.4	2.51E-10	1.66E-10	1.30E-09	1.1	(S,2-5s)	3.5	3.3	2.7	3.4	3.4	0.5	2.51E+11
LF	S0320b	C	32.2	8.1	6.77E-11	1.59E-10	2.43E-10	3.4	(S,2-5s)	2.1	2.7	2.7	3.0	3.0	0.4	1.25E+11
LF	S0323d	C	33.0	8.2	5.31E-11	-	2.38E-10	2.7	(S,2-5s)	2.6	2.6	-	3.0	3.0	0.4	1.25E+11
LF	S0325a	B	37.5	6.0	9.77E-10	-	2.38E-09	12.6	(S,2-5s)	2.9	3.9	-	3.7	3.7	0.4	3.69E+11

LF	S0345a	C	91.5	22.9	1.29E-10	1.51E-10	1.99E-10	4.6	(S,2-5s)	2.2	3.3	3.2	3.2	3.2	0.5	1.82E+11
LF	S0357a	C	36.0	9.0	5.59E-11	-	1.78E-10	2.8	(S,2-5s)	2.2	2.7	-	2.9	2.9	0.5	1.14E+11
LF	S0407a	B	29.8	2.0	1.21E-10	2.03E-10	2.78E-10	3.5	(S,2-5s)	2.0	3.0	2.8	3.0	3.0	0.4	1.28E+11
LF	S0409d	B	27.2	5.9	7.11E-11	3.16E-10	5.35E-10	22.4	(S,2-5s)	2.3	2.7	3.0	3.2	3.2	0.4	1.65E+11
LF	S0421b	C	97.4	24.4	7.88E-11	1.61E-10	2.00E-10	2.3	(S,2-5s)	2.1	3.2	3.3	3.3	3.3	0.5	1.88E+11
LF	S0423a	D	30.3	7.6	4.85E-11	6.53E-11	1.70E-10	1.9	(P,2-5s)	2.1	2.6	2.3	2.9	2.9	0.4	1.04E+11
LF	S0474a	C	26.1	18.3	1.17E-10	2.10E-10	2.11E-10	1.9	(S,2-5s)	1.6	2.9	2.8	2.9	2.9	0.4	1.07E+11
LF	S0474b	D	27.7	6.9	1.52E-10	4.21E-10	1.03E-09	16.8	(S,2-5s)	3.2	3.0	3.1	3.4	3.4	0.4	2.22E+11
BB	S0133a	C	88.5	22.1	9.60E-11	8.39E-11	1.43E-10	4.6	(S,2-5s)	1.4	3.2	2.9	3.1	3.1	0.5	1.55E+11
BB	S0152a	C	98.1	24.5	6.57E-11	8.38E-11	6.51E-11	2.1	(S,2-5s)	0.7	3.1	3.0	2.9	2.9	0.5	1.14E+11
BB	S0154a	C	33.7	8.4	1.97E-10	3.37E-10	1.89E-10	19.4	(S,2-5s)	1.2	3.2	3.1	2.9	2.9	0.4	1.14E+11
BB	S0185a	B	58.8	21.4	6.11E-11	1.87E-10	1.69E-10	4.9	(S,2-5s)	1.2	2.9	3.1	3.1	3.1	0.4	1.39E+11
BB	S0205a	C	42.4	10.6	6.06E-11	-	1.75E-10	2.0	(P,2-5s)	1.8	2.8	-	3.0	3.0	0.5	1.22E+11
BB	S0235b	A	26.5	1.6	7.05E-10	3.25E-09	1.94E-09	288.9	(S,2-5s)	2.6	3.7	4.0	3.5	3.5	0.3	2.89E+11
BB	S0235c	C	27.9	7.5	1.22E-10	1.59E-10	9.00E-11	2.2	(S,2-5s)	1.0	2.9	2.7	2.7	2.7	0.4	7.55E+10
BB	S0395a	C	90.6	22.6	1.29E-10	2.94E-10	1.21E-10	6.6	(S,2-5s)	1.0	3.3	3.5	3.1	3.1	0.4	1.45E+11
BB	S0484b	B	31.4	5.9	9.06E-11	2.27E-10	1.68E-10	3.2	(S,2-5s)	1.2	2.9	2.9	2.9	2.9	0.4	1.05E+11

19 LF – low-frequency, BB – broadband

High-frequency event family

type	event	quality	distance [o]	distance unc. [o]	$A_{2.4,pick}$ [m]	$A_{2.4,spec}$ [m/VHz]	A_0 [m/VHz]	SNR	SNR type	t^* [s]	$M_{2.4,pick}^{Ma}$	$M_{2.4,spec}^{Ma}$	$M_{W,spec}^{Ma}$	M_W^{Ma}	σ_M	M_0
HF	S0185b	B	27.3	6.8	4.81E-11	2.68E-11	9.66E-12	3.8	(2.4Hz)	0.1	1.9	1.9	2.0	2.0	0.2	2.53E+10
HF	S0202c	C	23.7	5.9	5.49E-11	2.55E-11	6.74E-12	3.3	(2.4Hz)	0.1	1.9	1.8	1.8	1.8	0.2	2.05E+10
HF	S0213a	C	31.0	7.8	3.9E-11	2.29E-11	6.42E-12	3.8	(2.4Hz)	0.1	1.8	1.9	1.9	1.9	0.2	2.21E+10
HF	S0228c	B	21.4	5.3	4.27E-11	2.6E-11	8.04E-12	4.5	(2.4Hz)	0.1	1.7	1.8	1.8	1.8	0.2	2.14E+10
HF	S0231b	B	23.4	5.8	4.97E-11	2.83E-11	1.02E-11	4.3	(2.4Hz)	0.1	1.8	1.9	1.9	1.9	0.2	2.46E+10
HF	S0239a	B	26.4	6.6	7.5E-11	3.28E-11	6.67E-12	4.8	(2.4Hz)	0.1	2.1	2.0	1.8	1.8	0.2	2.12E+10
HF	S0246a	B	25.5	6.4	5.71E-11	2.58E-11	5.36E-12	4.6	(2.4Hz)	0.1	1.9	1.9	1.8	1.8	0.2	1.90E+10
HF	S0260a	B	25.2	6.3	1.16E-10	6.22E-11	2.46E-11	7.2	(2.4Hz)	0.2	2.2	2.2	2.2	2.2	0.2	3.73E+10
HF	S0262b	C	24.5	6.1	6.01E-11	2.89E-11	2.30E-11	3.8	(2.4Hz)	0.2	1.9	1.9	2.2	2.2	0.2	3.59E+10
HF	S0289a	B	26.3	6.6	1.35E-10	6.68E-11	3.53E-11	7.9	(2.4Hz)	0.3	2.3	2.3	2.3	2.3	0.2	4.45E+10
HF	S0291c	B	22.4	5.6	5.89E-11	3.16E-11	1.25E-11	4.2	(2.4Hz)	0.1	1.9	1.9	2.0	2.0	0.2	2.65E+10
HF	S0292a	C	31.4	7.8	6.1E-11	2.32E-11	5.52E-12	3.6	(2.4Hz)	0.1	2.0	1.9	1.8	1.8	0.2	2.08E+10
HF	S0303a	C	25.5	6.4	3.51E-11	2.33E-11	1.19E-11	3.5	(2.4Hz)	0.1	1.7	1.8	2.0	2.0	0.2	2.71E+10
HF	S0304b	B	25.4	6.3	7.75E-11	3.54E-11	1.43E-11	5.6	(2.4Hz)	0.2	2.1	2.0	2.1	2.1	0.2	2.94E+10
HF	S0306a	C	31.4	7.8	1.45E-10	6.59E-11	7.64E-11	3.7	(2.4Hz)	0.3	2.4	2.4	2.6	2.6	0.2	6.68E+10
HF	S0308a	B	26.6	6.7	1.13E-10	6.46E-11	1.19E-11	4.7	(2.4Hz)	0.2	2.2	2.3	2.0	2.0	0.2	2.76E+10
HF	S0311a	C	26.3	6.6	9.92E-11	4.78E-11	9.78E-12	5.1	(2.4Hz)	0.1	2.2	2.1	2.0	2.0	0.2	2.52E+10
HF	S0314b	B	23.7	5.9	1.08E-10	4.71E-11	7.77E-12	4.8	(2.4Hz)	0.1	2.2	2.1	1.9	1.9	0.2	2.19E+10
HF	S0315b	B	23.2	5.8	4.81E-11	3.17E-11	1.19E-11	4.0	(2.4Hz)	0.1	1.8	1.9	2.0	2.0	0.2	2.62E+10
HF	S0319a	B	23.5	5.9	4.95E-11	2.72E-11	8.09E-12	3.3	(2.4Hz)	0.1	1.8	1.8	1.9	1.9	0.2	2.22E+10
HF	S0319b	B	25.7	6.4	7.82E-11	5.19E-11	1.54E-11	4.3	(2.4Hz)	0.1	2.1	2.2	2.1	2.1	0.2	3.05E+10
HF	S0323a	B	23.2	5.8	6.69E-11	2.64E-11	5.76E-12	3.8	(2.4Hz)	0.1	2.0	1.8	1.8	1.8	0.2	1.90E+10

HF	S0325b	B	25.9	6.5	5.69E-11	4.29E-11	2.71E-11	4.9	(2.4Hz)	0.2	1.9	2.1	2.2	2.2	0.2	3.93E+10
HF	S0327c	B	18.4	4.6	9.06E-11	4.9E-11	1.07E-11	5.3	(2.4Hz)	0.1	2.0	2.0	1.9	1.9	0.2	2.31E+10
HF	S0331a	B	22.6	5.7	1.9E-10	1.55E-10	3.23E-11	6.0	(2.4Hz)	0.2	2.4	2.6	2.3	2.3	0.2	4.05E+10
HF	S0340a	B	27.1	6.8	4.95E-11	2.91E-11	1.68E-11	3.2	(2.4Hz)	0.2	1.9	1.9	2.1	2.1	0.2	3.23E+10
HF	S0343b	B	27.0	6.8	6.6E-11	3.6E-11	1.68E-11	4.5	(2.4Hz)	0.2	2.0	2.0	2.1	2.1	0.2	3.23E+10
HF	S0347a	C	24.0	6.0	9.86E-11	5.07E-11	8.47E-12	5.5	(2.4Hz)	0.1	2.1	2.1	1.9	1.9	0.2	2.28E+10
HF	S0349a	B	25.5	6.4	4.44E-11	2.72E-11	1.21E-11	4.0	(2.4Hz)	0.2	1.8	1.9	2.0	2.0	0.2	2.73E+10
HF	S0351b	C	27.3	6.8	5.5E-11	2.06E-11	7.40E-12	4.0	(2.4Hz)	0.2	1.9	1.8	1.9	1.9	0.2	2.25E+10
HF	S0352a	B	28.4	7.1	9.79E-11	4.58E-11	1.69E-11	4.8	(2.4Hz)	0.2	2.2	2.2	2.1	2.1	0.2	3.30E+10
HF	S0361c	B	25.4	6.3	8.96E-11	5.27E-11	1.07E-11	4.6	(2.4Hz)	0.1	2.1	2.2	2.0	2.0	0.2	2.59E+10
HF	S0363d	C	28.3	7.1	4.85E-11	2.3E-11	8.72E-12	3.1	(2.4Hz)	0.1	1.9	1.9	1.9	1.9	0.2	2.45E+10
HF	S0371b	B	24.4	6.1	7.02E-11	3.58E-11	1.37E-11	3.9	(2.4Hz)	0.2	2.0	2.0	2.0	2.0	0.2	2.84E+10
HF	S0375a	C	26.6	6.7	6.28E-11	4.51E-11	2.68E-11	4.7	(2.4Hz)	0.3	2.0	2.1	2.2	2.2	0.2	3.95E+10
HF	S0384b	B	23.3	5.8	1.09E-10	6.66E-11	2.06E-11	5.3	(2.4Hz)	0.2	2.2	2.2	2.1	2.1	0.2	3.35E+10
HF	S0384c	C	28.0	7.0	5.1E-11	2.33E-11	5.12E-12	3.2	(2.4Hz)	0.1	1.9	1.9	1.8	1.8	0.2	1.93E+10
HF	S0384d	C	28.7	7.2	3.44E-11	1.72E-11	1.10E-11	2.5	(2.4Hz)	0.2	1.8	1.7	2.0	2.0	0.2	2.73E+10
HF	S0385a	C	23.8	6.0	8.08E-11	3.42E-11	1.41E-11	3.0	(2.4Hz)	0.2	2.0	2.0	2.0	2.0	0.2	2.86E+10
HF	S0392a	B	27.0	6.8	5.88E-11	4.97E-11	1.16E-11	4.4	(2.4Hz)	0.1	2.0	2.2	2.0	2.0	0.2	2.74E+10
HF	S0405f	B	22.8	5.7	5.67E-11	2.6E-11	1.02E-11	4.1	(2.4Hz)	0.1	1.9	1.8	1.9	1.9	0.2	2.44E+10
HF	S0423c	B	27.3	6.8	6.41E-11	2.25E-11	7.44E-12	3.4	(2.4Hz)	0.1	2.0	1.8	1.9	1.9	0.2	2.26E+10
HF	S0428a	C	23.7	5.9	3.93E-11	1.93E-11	1.23E-11	3.0	(2.4Hz)	0.2	1.7	1.7	2.0	2.0	0.2	2.68E+10
HF	S0429a	B	24.1	6.0	5.43E-11	1.95E-11	1.07E-11	2.7	(2.4Hz)	0.2	1.9	1.7	2.0	2.0	0.2	2.54E+10
HF	S0431b	C	27.5	6.9	5.06E-11	2.25E-11	1.22E-11	3.6	(2.4Hz)	0.2	1.9	1.8	2.0	2.0	0.2	2.82E+10
HF	S0432a	B	24.7	6.2	4.4E-11	3.81E-11	1.17E-11	3.6	(2.4Hz)	0.2	1.8	2.0	2.0	2.0	0.2	2.66E+10
HF	S0436c	B	21.5	5.4	3.98E-11	2.48E-11	1.07E-11	3.2	(2.4Hz)	0.2	1.7	1.8	1.9	1.9	0.2	2.44E+10

HF	S0458a	C	19.2	4.8	4.27E-11	1.99E-11	5.17E-12	2.2	(2.4Hz)	0.1	1.7	1.6	1.7	1.7	0.2	1.69E+10
HF	S0458b	C	19.9	5.0	3.61E-11	2.12E-11	1.29E-11	2.7	(2.4Hz)	0.2	1.6	1.7	2.0	2.0	0.2	2.58E+10
HF	S0490a	B	17.4	4.3	2.98E-10	1.87E-10	1.10E-11	8.5	(2.4Hz)	0.1	2.5	2.6	1.9	1.9	0.2	2.29E+10
VF	S0128a	B	7.8	1.9	5.46E-10	2.76E-10	5.89E-11	7.1	(2.4Hz)	0.1	2.4	2.4	2.2	2.2	0.2	3.62E+10
VF	S0202b	C	14.1	3.5	4.27E-11	2.55E-11	-	3.3	(2.4Hz)	0.1	1.5	1.6	-	1.6	0.2	1.46E+10
VF	S0218a	B	31.1	7.8	9.45E-11	4.93E-11	-	5.0	(2.4Hz)	0.1	2.2	2.2	-	2.2	0.2	3.84E+10
VF	S0226a	C	9.0	2.2	2.12E-11	1.62E-11	-	3.1	(2.4Hz)	0.1	1.0	1.2	-	1.2	0.2	7.98E+09
VF	S0241a	C	14.9	3.7	2.97E-11	1.37E-11	-	2.0	(2.4Hz)	0.6	1.4	1.4	-	1.4	0.2	1.00E+10
VF	S0263a	B	6.4	1.6	1E-10	5.92E-11	-	7.3	(2.4Hz)	0.4	1.6	1.6	-	1.6	0.2	1.52E+10
VF	S0264e	B	34.5	8.6	1.17E-10	5.92E-11	2.70E-11	8.1	(2.4Hz)	0.2	2.4	2.4	2.3	2.3	0.2	4.35E+10
VF	S0306c	C	9.5	2.4	2.65E-11	1.1E-11	-	1.4	(2.4Hz)	0.1	1.2	1.1	-	1.1	0.2	6.43E+09
VF	S0334a	B	19.8	5.0	2.06E-10	1.08E-10	2.24E-11	6.9	(2.4Hz)	0.6	2.4	2.4	2.1	2.1	0.2	3.29E+10
VF	S0334b	C	17.0	4.2	3.05E-11	2.04E-11	-	2.4	(2.4Hz)	0.2	1.5	1.6	-	1.6	0.2	1.43E+10
VF	S0343a	C	21.0	5.2	3E-11	2.04E-11	-	2.9	(2.4Hz)	0.5	1.6	1.7	-	1.7	0.2	1.64E+10
VF	S0358c	C	18.7	4.7	4.92E-11	2.18E-11	-	3.2	(2.4Hz)	0.1	1.7	1.7	-	1.7	0.2	1.59E+10
VF	S0376a	C	3.5	0.9	4.43E-11	3.09E-11	7.94E-12	3.5	(2.4Hz)	0.1	1.0	1.1	1.4	1.4	0.2	1.12E+10
VF	S0387a	B	32.1	8.0	7.41E-11	3.6E-11	1.26E-11	3.5	(2.4Hz)	0.1	2.1	2.1	2.1	2.1	0.2	3.02E+10
VF	S0421a	B	36.8	9.2	1.06E-10	5.67E-11	3.69E-11	8.1	(2.4Hz)	0.6	2.4	2.4	2.4	2.4	0.2	5.11E+10
VF	S0424c	B	31.2	7.8	1.31E-10	4.49E-11	2.77E-11	8.8	(2.4Hz)	0.5	2.4	2.2	2.3	2.3	0.2	4.25E+10
VF	S0475a	B	13.9	3.5	1.16E-10	4.87E-11	2.00E-11	5.8	(2.4Hz)	0.2	2.0	1.9	2.0	2.0	0.2	2.75E+10
VF	S0500a	B	12.0	3.0	1.39E-10	5.44E-11	-	5.5	(2.4Hz)	0.1	2.0	1.9	-	1.9	0.2	2.18E+10
VF	S0542a	C	21.4	5.3	5.3E-10	2.91E-10	-	4.0	(2.4Hz)	0.1	2.8	2.8	-	2.8	0.2	9.78E+10
VF	S0653a	C	7.0	1.7	2.33E-10	1.4E-10	-	3.0	(2.4Hz)	0.1	2.0	2.0	-	2.0	0.2	2.85E+10
VF	S0661a	C	7.3	1.8	2.68E-10	1.43E-10	-	3.7	(2.4Hz)	0.1	2.1	2.1	-	2.1	0.2	2.98E+10

24	S0151a	C	37.7	9.4	2.79E-11	1.62E-11	-	2.5	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.08E+10
24	S0168a	C	27.4	6.8	3.04E-11	1.82E-11	-	2.7	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.82E+10
24	S0182a	C	27.6	6.9	1.3E-11	1.18E-11	-	2.0	(2.4Hz)	-	1.3	1.6	-	1.6	0.2	1.37E+10
24	S0183b	C	30.0	7.5	3.2E-11	1.62E-11	-	2.7	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.79E+10
24	S0186a	C	35.0	8.8	2.54E-11	1.28E-11	-	2.0	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.69E+10
24	S0193a	C	24.8	6.2	2.33E-11	1.65E-11	-	2.7	(2.4Hz)	-	1.5	1.7	-	1.7	0.2	1.59E+10
24	S0194c	B	27.7	6.9	2.89E-11	2E-11	-	3.1	(2.4Hz)	-	1.7	1.8	-	1.8	0.2	1.95E+10
24	S0200a	C	24.2	6.0	2.93E-11	1.52E-11	-	2.5	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.48E+10
24	S0201b	C	21.6	5.4	2.96E-11	1.67E-11	-	2.3	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.46E+10
24	S0203b	C	33.8	8.4	1.87E-11	1.22E-11	-	2.0	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.60E+10
24	S0212a	C	26.2	6.5	2.21E-11	1.34E-11	-	2.7	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.44E+10
24	S0212c	C	26.6	6.7	1.98E-11	1.32E-11	-	2.4	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.44E+10
24	S0215a	C	30.4	7.6	2.63E-11	1.49E-11	-	2.4	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.70E+10
24	S0216a	B	20.6	5.2	3.54E-11	1.6E-11	-	3.5	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.38E+10
24	S0216b	B	22.7	5.7	2.34E-11	1.65E-11	-	3.1	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.50E+10
24	S0219a	C	32.1	8.0	2.02E-11	1.37E-11	-	2.1	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.67E+10
24	S0219b	C	24.1	6.0	3.63E-11	2.04E-11	-	3.2	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.80E+10
24	S0219c	B	26.7	6.7	3.03E-11	1.5E-11	-	3.0	(2.4Hz)	-	1.7	1.6	-	1.6	0.2	1.57E+10
24	S0221b	C	24.0	6.0	2.75E-11	1.39E-11	-	2.5	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.39E+10
24	S0221c	C	22.1	5.5	2.73E-11	1.3E-11	-	1.8	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.26E+10
24	S0222a	B	20.1	5.0	3.94E-11	2.02E-11	-	3.6	(2.4Hz)	-	1.7	1.6	-	1.6	0.2	1.58E+10
24	S0226c	C	25.8	6.5	2.17E-11	1.21E-11	-	1.8	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.33E+10
24	S0227d	B	23.5	5.9	3.42E-11	1.87E-11	-	3.2	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.67E+10
24	S0228b	C	19.9	5.0	2.93E-11	1.26E-11	-	2.2	(2.4Hz)	-	1.5	1.4	-	1.4	0.2	1.15E+10

24	S0229a	B	26.0	6.5	3.45E-11	1.47E-11	-	2.8	(2.4Hz)	-	1.7	1.6	-	1.6	0.2	1.52E+10
24	S0234b	C	13.1	3.3	1.91E-11	1.19E-11	-	2.0	(2.4Hz)	-	1.2	1.2	-	1.2	0.2	8.37E+09
24	S0235d	C	25.3	6.3	2.52E-11	1.28E-11	-	2.5	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.36E+10
24	S0240b	C	25.7	6.4	5.24E-11	3.57E-11	-	3.5	(2.4Hz)	-	1.9	2.0	-	2.0	0.2	2.73E+10
24	S0241b	C	26.9	6.7	2.23E-11	1.19E-11	-	2.1	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.35E+10
24	S0242a	C	21.3	5.3	4.6E-11	2.7E-11	-	4.0	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.00E+10
24	S0242b	C	20.1	5.0	2.79E-11	1.61E-11	-	2.1	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.36E+10
24	S0244a	C	16.8	4.2	2.42E-11	1.31E-11	-	2.1	(2.4Hz)	-	1.4	1.4	-	1.4	0.2	1.05E+10
24	S0244b	C	19.5	4.9	2.63E-11	1.36E-11	-	2.4	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.19E+10
24	S0244c	C	18.7	4.7	3.27E-11	1.53E-11	-	2.7	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.25E+10
24	S0244d	C	19.6	4.9	2.57E-11	1.59E-11	-	3.4	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.33E+10
24	S0244e	C	26.7	6.7	1.91E-11	1.23E-11	-	2.1	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.38E+10
24	S0246b	C	24.9	6.2	2.4E-11	1.31E-11	-	2.2	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.37E+10
24	S0247a	B	18.0	4.5	3.33E-11	1.66E-11	-	3.2	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.29E+10
24	S0247b	B	24.3	6.1	1.94E-11	1.24E-11	-	2.0	(2.4Hz)	-	1.4	1.5	-	1.5	0.2	1.30E+10
24	S0248a	B	17.7	4.4	2.89E-11	1.34E-11	-	2.8	(2.4Hz)	-	1.5	1.4	-	1.4	0.2	1.11E+10
24	S0248b	B	16.8	4.2	2.15E-11	1.47E-11	-	2.5	(2.4Hz)	-	1.3	1.4	-	1.4	0.2	1.14E+10
24	S0248d	C	23.1	5.8	2.58E-11	1.45E-11	-	2.0	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.39E+10
24	S0250a	C	25.2	6.3	2.72E-11	1.29E-11	-	2.3	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.37E+10
24	S0251c	C	22.4	5.6	2.98E-11	1.38E-11	-	2.2	(2.4Hz)	-	1.6	1.5	-	1.5	0.2	1.32E+10
24	S0252a	B	20.1	5.0	5.86E-11	2.5E-11	-	4.1	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.83E+10
24	S0252b	C	25.8	6.5	2.98E-11	1.54E-11	-	1.6	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.56E+10
24	S0253b	C	26.3	6.6	1.52E-11	1.25E-11	-	1.9	(2.4Hz)	-	1.4	1.6	-	1.6	0.2	1.38E+10
24	S0254a	C	23.3	5.8	2.57E-11	1.73E-11	-	2.9	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.58E+10
24	S0254c	C	27.7	6.9	2.77E-11	1.48E-11	-	2.4	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.60E+10

24	S0255b	B	30.2	7.5	3.52E-11	1.72E-11	-	3.1	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	1.87E+10
24	S0256c	C	26.6	6.7	2.25E-11	1.43E-11	-	2.5	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.52E+10
24	S0257a	C	30.3	7.6	3.53E-11	2.19E-11	-	2.6	(2.4Hz)	-	1.8	1.9	-	1.9	0.2	2.20E+10
24	S0257b	B	25.9	6.5	3.83E-11	2.45E-11	-	4.1	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.13E+10
24	S0260b	C	28.7	7.2	2.18E-11	1.3E-11	-	2.8	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.50E+10
24	S0261a	C	25.5	6.4	2.5E-11	1.43E-11	-	3.0	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.48E+10
24	S0261b	C	22.8	5.7	3.28E-11	1.84E-11	-	4.8	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.62E+10
24	S0263c	B	25.9	6.5	2.77E-11	1.61E-11	-	2.9	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.61E+10
24	S0264b	B	23.7	5.9	4.9E-11	2.04E-11	-	3.2	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.78E+10
24	S0265b	C	23.7	5.9	3.75E-11	2.49E-11	-	3.7	(2.4Hz)	-	1.7	1.8	-	1.8	0.2	2.03E+10
24	S0265c	C	19.0	4.8	2.09E-11	1.29E-11	-	2.2	(2.4Hz)	-	1.4	1.4	-	1.4	0.2	1.13E+10
24	S0265e	B	24.0	6.0	2.2E-11	1.34E-11	-	2.3	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.36E+10
24	S0266c	C	22.4	5.6	1.71E-11	1.41E-11	-	2.3	(2.4Hz)	-	1.3	1.5	-	1.5	0.2	1.34E+10
24	S0266e	C	33.1	8.3	2.98E-11	1.33E-11	-	2.6	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.67E+10
24	S0289b	C	24.2	6.0	3.77E-11	2.46E-11	-	2.5	(2.4Hz)	-	1.7	1.8	-	1.8	0.2	2.05E+10
24	S0290a	C	21.9	5.5	4.16E-11	2.3E-11	-	3.1	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.83E+10
24	S0291b	C	21.7	5.4	2.77E-11	1.6E-11	-	2.9	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.43E+10
24	S0291d	C	28.3	7.1	3.63E-11	1.65E-11	-	2.3	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.74E+10
24	S0292c	C	27.1	6.8	3.1E-11	1.66E-11	-	2.6	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.70E+10
24	S0294b	C	24.3	6.1	5.93E-11	3.31E-11	-	1.7	(2.4Hz)	-	1.9	1.9	-	1.9	0.2	2.50E+10
24	S0295b	C	24.7	6.2	3.03E-11	2.03E-11	-	2.9	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.82E+10
24	S0297b	C	21.0	5.2	4.64E-11	2.1E-11	-	2.7	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.67E+10
24	S0297c	C	25.1	6.3	4.18E-11	2.38E-11	-	2.9	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.05E+10
24	S0297d	C	19.1	4.8	2.97E-11	1.57E-11	-	1.9	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.29E+10
24	S0297e	C	19.5	4.9	2.65E-11	1.48E-11	-	2.3	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.26E+10

24	S0299a	C	26.0	6.5	5.41E-11	4.25E-11	-	2.9	(2.4Hz)	-	1.9	2.1	-	2.1	0.2	3.09E+10
24	S0299b	C	22.1	5.5	3.94E-11	1.64E-11	-	3.0	(2.4Hz)	-	1.7	1.6	-	1.6	0.2	1.47E+10
24	S0300a	C	16.7	4.2	3.77E-11	1.64E-11	-	3.0	(2.4Hz)	-	1.6	1.5	-	1.5	0.2	1.22E+10
24	S0301a	C	29.5	7.4	5.94E-11	2.75E-11	-	4.0	(2.4Hz)	-	2.0	2.0	-	2.0	0.2	2.51E+10
24	S0303b	C	19.5	4.9	3.15E-11	1.63E-11	-	2.1	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.35E+10
24	S0304a	C	24.8	6.2	5.08E-11	1.99E-11	-	3.9	(2.4Hz)	-	1.9	1.7	-	1.7	0.2	1.81E+10
24	S0308b	C	25.9	6.5	3.76E-11	2.41E-11	-	3.4	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.11E+10
24	S0309c	C	28.4	7.1	4.06E-11	1.72E-11	-	2.2	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.79E+10
24	S0311b	B	25.8	6.5	4.68E-11	2.34E-11	-	3.6	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.06E+10
24	S0314a	B	19.7	4.9	3.61E-11	2.18E-11	-	3.2	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.65E+10
24	S0315d	C	23.1	5.8	3.8E-11	1.78E-11	-	2.1	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.60E+10
24	S0318a	C	27.1	6.8	5.22E-11	2.08E-11	-	3.1	(2.4Hz)	-	1.9	1.8	-	1.8	0.2	1.97E+10
24	S0320a	C	32.9	8.2	9.29E-11	4.85E-11	-	4.4	(2.4Hz)	-	2.2	2.2	-	2.2	0.2	3.95E+10
24	S0321a	B	23.3	5.8	2.98E-11	1.69E-11	-	2.2	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.55E+10
24	S0322a	C	27.3	6.8	4.04E-11	3.11E-11	-	2.6	(2.4Hz)	-	1.8	2.0	-	2.0	0.2	2.59E+10
24	S0323b	C	27.2	6.8	3.64E-11	1.73E-11	-	2.8	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.75E+10
24	S0323c	B	22.3	5.6	2.97E-11	1.61E-11	-	2.4	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.46E+10
24	S0324d	C	19.3	4.8	3.4E-11	1.66E-11	-	2.4	(2.4Hz)	-	1.6	1.5	-	1.5	0.2	1.35E+10
24	S0325c	B	22.7	5.7	2.87E-11	1.49E-11	-	2.6	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.40E+10
24	S0325d	B	23.6	5.9	7.54E-11	3.26E-11	-	4.4	(2.4Hz)	-	2.0	1.9	-	1.9	0.2	2.43E+10
24	S0325e	C	26.7	6.7	1.98E-11	1.36E-11	-	2.0	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.47E+10
24	S0327a	B	21.0	5.2	4.95E-11	2.09E-11	-	3.0	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.67E+10
24	S0327b	C	26.1	6.5	2.52E-11	1.61E-11	-	2.6	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.62E+10
24	S0329a	C	25.8	6.5	4.58E-11	2.24E-11	-	2.9	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.01E+10
24	S0331b	C	25.1	6.3	4.83E-11	2.61E-11	-	3.8	(2.4Hz)	-	1.8	1.9	-	1.9	0.2	2.18E+10

24	S0332a	C	20.0	5.0	4.54E-11	1.68E-11	-	3.1	(2.4Hz)	-	1.7	1.6	-	1.6	0.2	1.40E+10
24	S0333a	C	29.0	7.2	3.46E-11	1.87E-11	-	2.2	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	1.92E+10
24	S0335b	C	28.3	7.1	3.43E-11	1.54E-11	-	2.0	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.66E+10
24	S0337a	C	27.6	6.9	3.1E-11	2.12E-11	-	2.9	(2.4Hz)	-	1.7	1.8	-	1.8	0.2	2.02E+10
24	S0338a	C	27.0	6.8	5.94E-11	3.03E-11	-	3.3	(2.4Hz)	-	2.0	2.0	-	2.0	0.2	2.53E+10
24	S0338b	B	26.6	6.7	7.5E-11	3.75E-11	-	4.1	(2.4Hz)	-	2.1	2.0	-	2.0	0.2	2.89E+10
24	S0339c	C	18.4	4.6	2.75E-11	1.64E-11	-	2.1	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.30E+10
24	S0340b	C	22.0	5.5	2.7E-11	1.38E-11	-	2.7	(2.4Hz)	-	1.5	1.5	-	1.5	0.2	1.31E+10
24	S0342a	B	25.7	6.4	4.27E-11	2.03E-11	-	3.1	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	1.87E+10
24	S0344a	C	23.5	5.9	2.61E-11	1.8E-11	-	2.4	(2.4Hz)	-	1.5	1.7	-	1.7	0.2	1.63E+10
24	S0346d	C	23.9	6.0	3.8E-11	1.85E-11	-	2.4	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.68E+10
24	S0348a	C	27.3	6.8	4.72E-11	1.82E-11	-	2.5	(2.4Hz)	-	1.9	1.7	-	1.7	0.2	1.81E+10
24	S0348b	C	25.1	6.3	4.82E-11	2.16E-11	-	3.1	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	1.92E+10
24	S0348c	C	22.8	5.7	4.45E-11	2.21E-11	-	3.2	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.83E+10
24	S0348d	C	22.8	5.7	2.7E-11	1.63E-11	-	2.1	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.49E+10
24	S0349b	C	27.4	6.8	1.15E-10	6.47E-11	-	2.4	(2.4Hz)	-	2.3	2.3	-	2.3	0.2	4.23E+10
24	S0353b	C	25.2	6.3	2.63E-11	2.35E-11	-	2.6	(2.4Hz)	-	1.6	1.8	-	1.8	0.2	2.04E+10
24	S0353c	C	24.5	6.1	2.12E-11	1.36E-11	-	2.2	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.39E+10
24	S0353d	C	17.0	4.2	3.67E-11	3.84E-11	-	2.5	(2.4Hz)	-	1.6	1.9	-	1.9	0.2	2.18E+10
24	S0355a	C	19.4	4.8	6.25E-11	2.26E-11	-	2.9	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.67E+10
24	S0358b	C	20.4	5.1	2.97E-11	1.59E-11	-	2.0	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.36E+10
24	S0359a	C	28.7	7.2	3.41E-11	2.07E-11	-	2.5	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.04E+10
24	S0361b	C	26.0	6.5	3.53E-11	1.76E-11	-	2.5	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.72E+10
24	S0363a	C	24.4	6.1	3.46E-11	2.64E-11	-	3.3	(2.4Hz)	-	1.7	1.9	-	1.9	0.2	2.16E+10
24	S0363b	C	24.0	6.0	2.32E-11	1.67E-11	-	2.2	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.57E+10

24	S0363c	C	22.2	5.5	3.53E-11	1.86E-11	-	2.7	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.60E+10
24	S0365a	C	22.6	5.7	3.7E-11	1.89E-11	-	3.9	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.64E+10
24	S0366c	B	22.7	5.7	4.59E-11	2.22E-11	-	3.0	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.83E+10
24	S0366d	C	20.9	5.2	2.9E-11	1.79E-11	-	2.2	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.50E+10
24	S0366e	C	23.6	5.9	3.58E-11	2.26E-11	-	3.2	(2.4Hz)	-	1.7	1.8	-	1.8	0.2	1.90E+10
24	S0367c	B	23.9	6.0	2.43E-11	1.8E-11	-	2.4	(2.4Hz)	-	1.5	1.7	-	1.7	0.2	1.65E+10
24	S0367d	C	25.1	6.3	2.51E-11	1.44E-11	-	2.1	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.47E+10
24	S0368a	C	31.9	8.0	1.87E-11	1.32E-11	-	1.7	(2.4Hz)	-	1.5	1.7	-	1.7	0.2	1.62E+10
24	S0369b	C	21.9	5.5	3.5E-11	1.87E-11	-	2.7	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.59E+10
24	S0370a	C	21.3	5.3	4.62E-11	2.5E-11	-	3.7	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	1.90E+10
24	S0372a	B	23.7	5.9	6.05E-11	3.23E-11	-	4.3	(2.4Hz)	-	1.9	1.9	-	1.9	0.2	2.42E+10
24	S0373b	C	24.1	6.0	4.53E-11	1.88E-11	-	2.8	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.71E+10
24	S0378a	C	25.3	6.3	5.39E-11	2.56E-11	-	2.7	(2.4Hz)	-	1.9	1.9	-	1.9	0.2	2.16E+10
24	S0378b	B	24.0	6.0	5.36E-11	2.95E-11	-	3.6	(2.4Hz)	-	1.9	1.9	-	1.9	0.2	2.30E+10
24	S0383a	C	18.5	4.6	3.42E-11	1.8E-11	-	2.9	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.39E+10
24	S0384a	C	28.3	7.1	5.21E-11	2.44E-11	-	2.7	(2.4Hz)	-	1.9	1.9	-	1.9	0.2	2.26E+10
24	S0385b	C	22.5	5.6	2.98E-11	1.97E-11	-	2.3	(2.4Hz)	-	1.6	1.7	-	1.7	0.2	1.68E+10
24	S0386b	C	25.1	6.3	4.03E-11	1.96E-11	-	2.5	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.80E+10
24	S0390c	C	17.4	4.3	1.96E-11	1.56E-11	-	1.9	(2.4Hz)	-	1.3	1.5	-	1.5	0.2	1.21E+10
24	S0394a	B	23.8	6.0	6.39E-11	2.47E-11	-	3.7	(2.4Hz)	-	1.9	1.8	-	1.8	0.2	2.03E+10
24	S0397a	C	20.5	5.1	3.7E-11	2.5E-11	-	2.5	(2.4Hz)	-	1.6	1.8	-	1.8	0.2	1.85E+10
24	S0397b	C	24.4	6.1	5.05E-11	2.12E-11	-	3.1	(2.4Hz)	-	1.9	1.8	-	1.8	0.2	1.86E+10
24	S0397d	C	22.5	5.6	2.32E-11	1.5E-11	-	2.1	(2.4Hz)	-	1.5	1.6	-	1.6	0.2	1.40E+10
24	S0398b	C	30.5	7.6	3.53E-11	1.84E-11	-	2.2	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	1.97E+10
24	S0401b	C	40.9	10.2	4.74E-11	1.82E-11	-	3.1	(2.4Hz)	-	2.0	1.9	-	1.9	0.2	2.37E+10

24	S0405b	C	18.8	4.7	3.57E-11	1.95E-11	-	2.3	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.48E+10
24	S0405d	C	24.9	6.2	3.12E-11	1.53E-11	-	2.5	(2.4Hz)	-	1.7	1.6	-	1.6	0.2	1.52E+10
24	S0408a	C	27.1	6.8	4.33E-11	2.94E-11	-	3.5	(2.4Hz)	-	1.8	1.9	-	1.9	0.2	2.48E+10
24	S0408b	B	24.4	6.1	4.83E-11	3.12E-11	-	3.8	(2.4Hz)	-	1.8	1.9	-	1.9	0.2	2.41E+10
24	S0409c	C	24.6	6.2	3.6E-11	1.9E-11	-	3.0	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.74E+10
24	S0412a	C	25.3	6.3	4.08E-11	1.62E-11	-	3.2	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.59E+10
24	S0414a	C	28.8	7.2	3.32E-11	1.66E-11	-	2.5	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.77E+10
24	S0415a	C	20.4	5.1	3.97E-11	2.11E-11	-	2.8	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.65E+10
24	S0417a	B	22.4	5.6	3.95E-11	2.13E-11	-	3.0	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.76E+10
24	S0417b	C	24.5	6.1	2.62E-11	1.58E-11	-	1.8	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.54E+10
24	S0418a	B	29.2	7.3	4.18E-11	2.14E-11	-	3.2	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.11E+10
24	S0419a	C	31.0	7.8	3.68E-11	1.89E-11	-	2.7	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.02E+10
24	S0423d	C	22.6	5.7	3.98E-11	1.77E-11	-	2.3	(2.4Hz)	-	1.7	1.6	-	1.6	0.2	1.57E+10
24	S0427b	C	22.7	5.7	2.95E-11	1.74E-11	-	2.4	(2.4Hz)	-	1.6	1.6	-	1.6	0.2	1.56E+10
24	S0429b	C	27.2	6.8	3.38E-11	1.72E-11	-	2.2	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.74E+10
24	S0429c	B	19.7	4.9	5.49E-11	2.43E-11	-	3.4	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.77E+10
24	S0430a	C	27.1	6.8	3.78E-11	2.19E-11	-	2.8	(2.4Hz)	-	1.8	1.8	-	1.8	0.2	2.04E+10
24	S0430c	B	28.4	7.1	5.72E-11	1.92E-11	-	3.3	(2.4Hz)	-	2.0	1.8	-	1.8	0.2	1.93E+10
24	S0436b	C	31.8	8.0	4.61E-11	1.62E-11	-	2.3	(2.4Hz)	-	1.9	1.8	-	1.8	0.2	1.86E+10
24	S0439a	C	23.5	5.9	8.58E-11	5.88E-11	-	5.9	(2.4Hz)	-	2.1	2.2	-	2.2	0.2	3.59E+10
24	S0446a	C	25.3	6.3	6.62E-11	3.13E-11	-	2.9	(2.4Hz)	-	2.0	1.9	-	1.9	0.2	2.47E+10
24	S0448a	C	31.0	7.8	5.19E-11	2.96E-11	-	2.8	(2.4Hz)	-	2.0	2.0	-	2.0	0.2	2.73E+10
24	S0460a	B	21.8	5.5	4.37E-11	2.56E-11	-	3.0	(2.4Hz)	-	1.7	1.8	-	1.8	0.2	1.96E+10
24	S0467a	C	20.5	5.1	4.15E-11	2.77E-11	-	3.0	(2.4Hz)	-	1.7	1.8	-	1.8	0.2	1.98E+10
24	S0472a	C	24.1	6.0	3.3E-11	2.28E-11	-	2.1	(2.4Hz)	-	1.7	1.8	-	1.8	0.2	1.94E+10

24	S0477a	B	26.1	6.5	7.43E-11	2.49E-11	-	4.2	(2.4Hz)	-	2.0	1.9	-	1.9	0.2	2.17E+10
24	S0494a	C	25.4	6.3	3.88E-11	1.73E-11	-	2.9	(2.4Hz)	-	1.8	1.7	-	1.7	0.2	1.67E+10
24	S0510a	C	21.5	5.4	3.95E-11	2.35E-11	-	2.1	(2.4Hz)	-	1.7	1.7	-	1.7	0.2	1.83E+10
24	S0518a	C	16.9	4.2	1.92E-10	1.12E-10	-	2.6	(2.4Hz)	-	2.3	2.3	-	2.3	0.2	4.42E+10
24	S0534a	C	38.2	9.6	4.29E-10	2.61E-10	-	2.5	(2.4Hz)	-	3.0	3.0	-	3.0	0.2	1.34E+11

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HF – high-frequency, VF – very high-frequency, 24 - 2.4Hz resonance