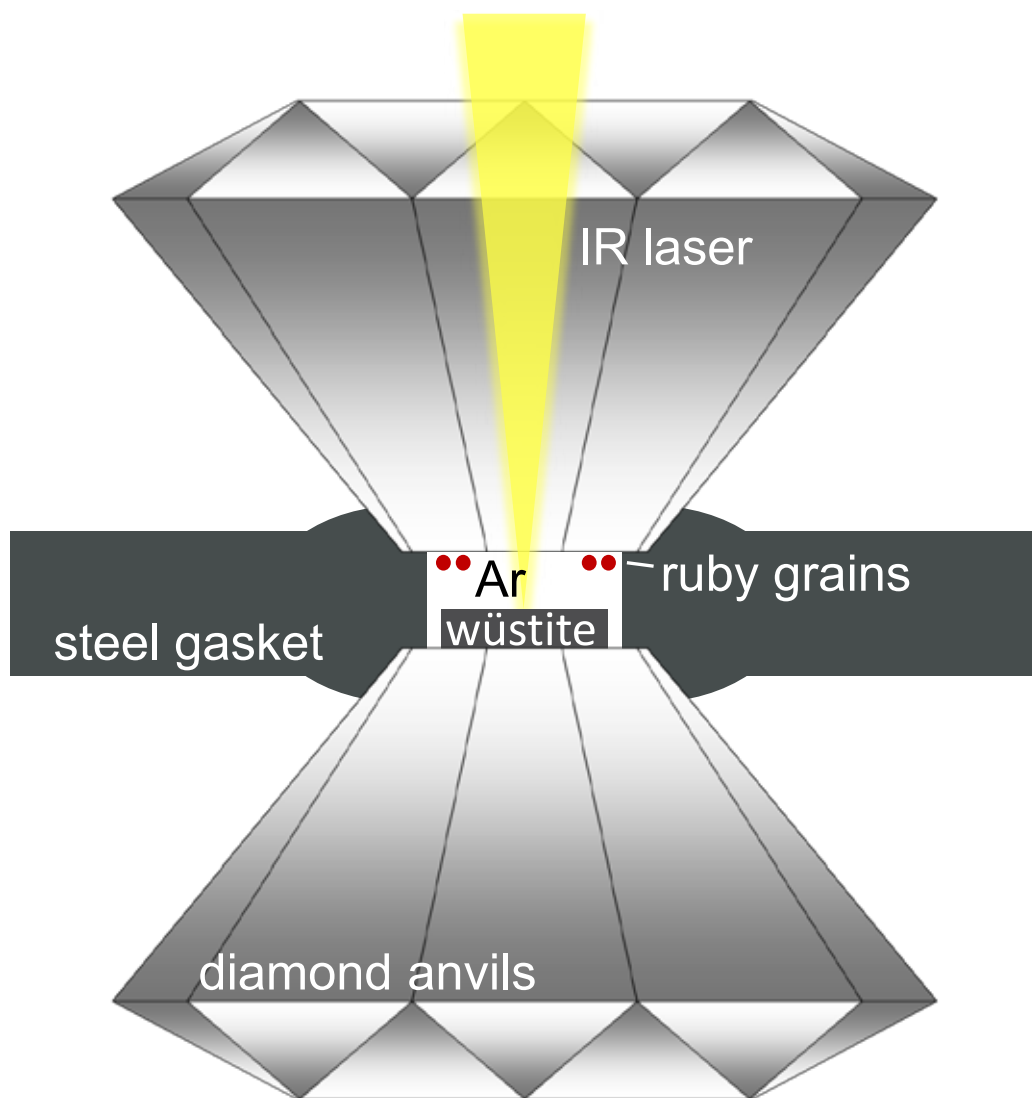


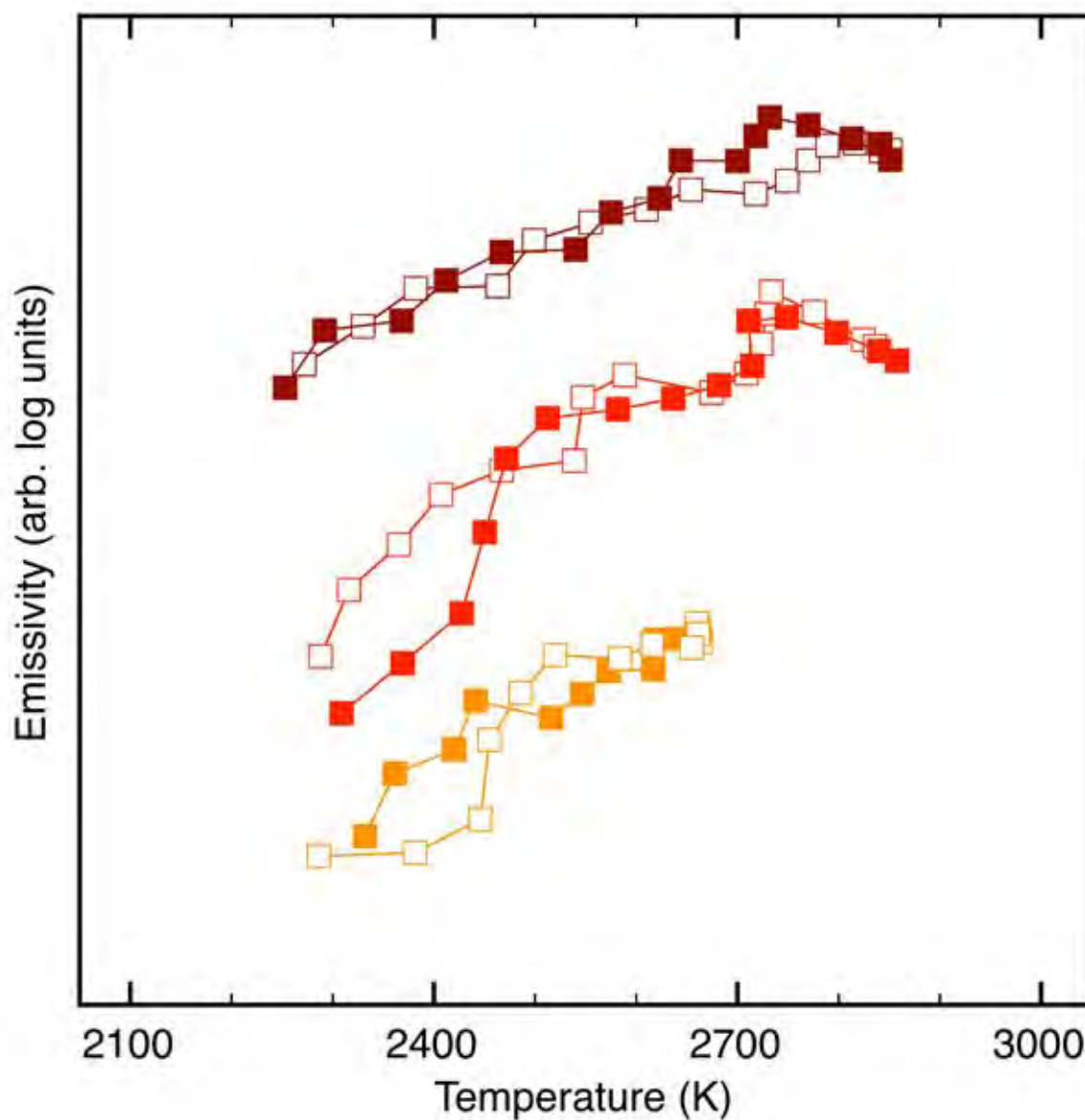
High-pressure melting of wüstite
Rebecca A. Fischer and Andrew J. Campbell
AM-10-049/October American Mineralogist

Deposit Appendices



Appendix 1

Appendix 1. Cross-sectional view of the diamond anvil cell and sample chamber. A thin wüstite pellet was laser heated on one side in an Ar environment. Pressures were determined by the ruby fluorescence method.



Appendix 2

Appendix 2. Temperature-emissivity profiles from a single experiment at 51 GPa and different laser power settings. At lower laser powers (orange squares, 12.1 W laser output), before the melting point is reached, the melting-induced discontinuity is not evident in the profile. At higher laser powers (red squares, 15.6 W; maroon squares, 17.1 W), a discontinuity representing melting appears at the same temperature at various laser power settings. Open and filled symbols represent opposing sides of the transect across the laser heated spot.

Appendix 3. Melting temperatures of wüstite, Fe_{0.94}O.

P (GPa)	sigma P	T (K)	sigma T
10.0	0.5	1856	43
10.0	0.5	1937	68
12.0	0.5	1998	17
12.5	0.5	1912	34
14.5	0.5	1949	18
16.0	0.5	1978	21
16.5	0.8	1995	45
21.6	0.5	2299	46
21.6	0.5	2135	64
24.7	0.5	2348	46
24.7	0.5	2259	48
28.8	0.5	2402	24
34.1	1.0	2525	25
37.7	1.5	2617	57
42.5	0.8	2687	71
46.5	1.5	2674	39
47.5	1.5	2768	48
51.0	0.8	2814	43
56.0	0.8	2845	57
62.5	0.8	2948	74