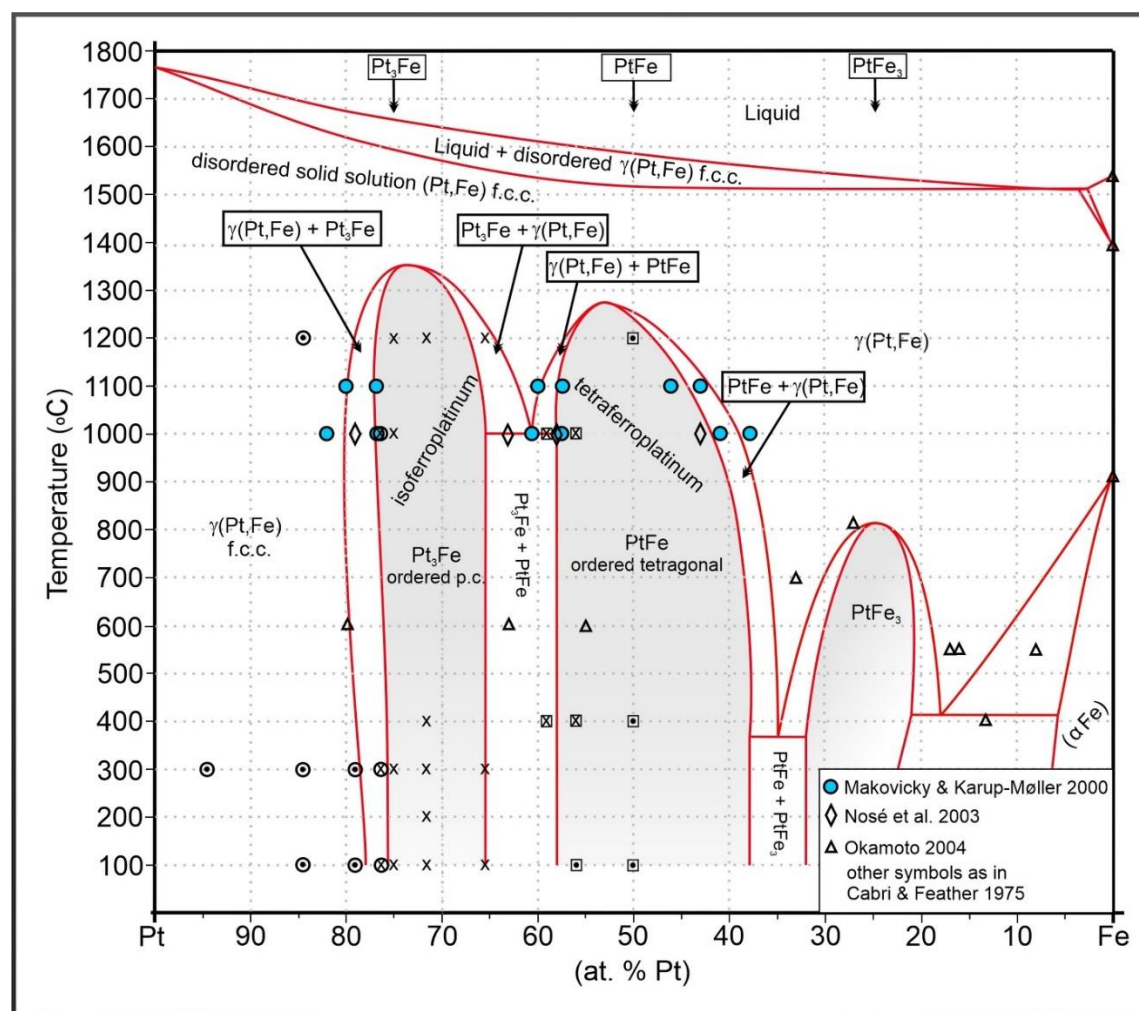


Discovery of the Six Members of the Platinum Group and Their Mineralogical Characterization: Supplementary Information

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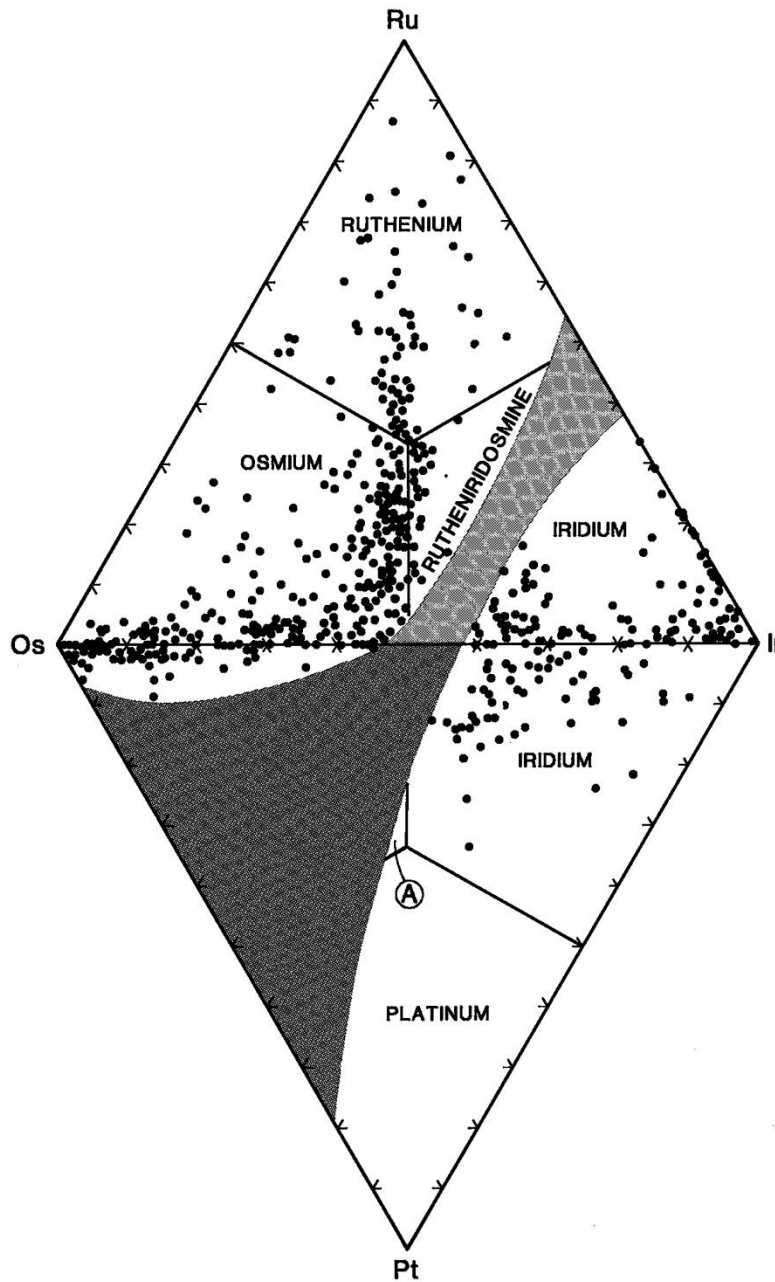
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A revised Pt-Fe phase diagram from Cabri *et al.* (2022, Fig. 1) to replace those used in the materials science literature by including experimental data published in the mineralogical literature. References cited are in (8). Permission from *The Canadian Mineralogist*.



Phase relations in the pure Pt-Fe binary redrawn based on experimental data from Cabri & Feather (1975), Makovicky and Karup-Møller (2000), Nosé et al. (2003), Okamoto (2004), and the SGnobl noble metal data base. The symbols used from Cabri and Feather (1975) represent single phases or two phases as follows: circle with dot = f.c.c., x = p.c., square with dot = tetragonal, circle with x = f.c.c. + p.c., and square with x = p.c. + tetragonal. These experimental data points were used to draw the boundaries extending down to 100° C. Further details in (8).

The ternary systems Os-Ir-Ru and Ir-Os-Pt (at. %) showing the IMA-approved nomenclature. The miscibility gaps in both ternary systems are based on a combination of analyses of PGE alloys found in alluvial deposits and experimental data available. The diagram is from Harris and Cabri (1991) where further details can be found (36). Permission from *The Canadian Mineralogist*.



References

8 L.J. Cabri, T. Oberthür and D. Schumann, *The Canadian Mineralogist*, 2022a, **60**, 331

<https://doi.org/10.3749/canmin.2100060>

36 D.C. Harris and L.J. Cabri, *The Canadian Mineralogist*, 1991, **29**, 231