

# LIQUID PHASE INTERCALATION OF NIOBIUM FLUORIDE INTO GRAPHITE FILMS INCREASES ELECTRICAL CONDUCTIVITY UP TO 27 MS/m

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The intercalation of metal fluorides in graphite is well-known by vapor phase [1]. For most metal fluorides, the presence of gaseous fluorine is even required for intercalation [2]. Nakajima et al. report an electrical conductivity of 12.5 MS/m for niobium fluoride graphite intercalation compounds [3]. We show a liquid phase approach for intercalation of niobium fluoride by dissolving it in fluorosulfuric acid. Niobium fluoride intercalates into graphite films resulting in a color change of the film into deep blue. The measurement of the electrical conductivity of the deep blue samples reaches up to 27 MS/m.

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## References

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