

## Oxo-Graphene – Synthesis and Heterostructures

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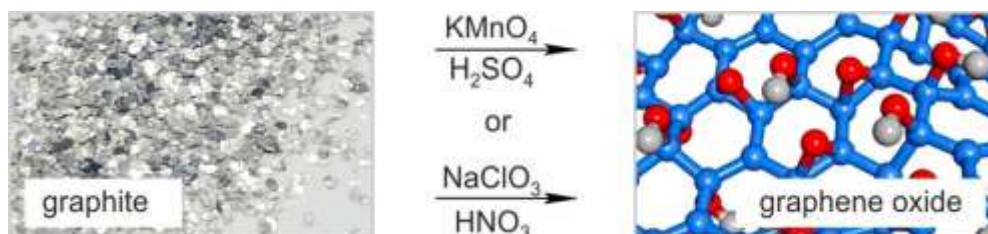
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The synthesis of graphene as a soluble precursor of high quality paves the way for the control of the properties of the graphene oxide material class. The synthetic process starting from graphite (Figure 1) requires a "speed limitation" along the oxidation path.<sup>[2]</sup> With this knowledge, the surface chemistry can be related to chemical reactivity<sup>[3]</sup> and physical properties and thus, the path to oxo-graphene materials and heterostructures is made possible.<sup>[4]</sup>

### References

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- [2] P. Feicht, J. Biskupek, T. E. Gorelik, J. Renner, C. E. Halbig, M. Maranska, F. Puchtler, U. Kaiser, S. Eigler, *Chemistry – A European Journal* (2019) DOI: 10.1002/chem.201901499.
- [3] C. E. Halbig, R. Lasch, J. Krull, A. S. Pirzer, Z. Wang, J. N. Kirchhof, K. I. Bolotin, M. R. Heinrich, S. Eigler, *Angewandte Chemie International Edition* (2019), 3599.

### Figures



**Figure 1:** From graphite to oxo-graphene, a versatile precursor.