



*Trityl OX063 doped with tetracarboxylate-ester-pyrroline (TCP) in DNP juice*

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**Field strength:** 6.9 T

**Why is this your favorite spectrum?**

The picture shows the result of a truncated cross-effect (tCE) that has the appearance of an Overhauser effect (OE) DNP. Such an effect was observed when doping OX063 with the nitroxide based radical, TCP2, in vitrified water/glycerol. This observation can be easily reported as OE since it matches the feature of what people observed on BDPA. However, after carefully thinking and calculation, a tCE was found to be the actual mechanism behind our observation. The mechanistic basis for this astonishing effect was found to be a substructure of the CE mechanism defined by distinct electron spin dynamics properties of fast and slow relaxing radicals.