

## **Silica coating of non-silicate nanoparticles for resin-based composite materials**

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Appendix 1 – X-ray diffraction spectra of the nanopowders with and without silica coating, including the spectral patterns of (a) the gamma alumina crystalline phase for Al and AlSi, (b) the anatase crystalline phase for Ti and predominantly anatase with rutile peaks (black arrows) for TiSi, and (c) the monoclinic zirconia crystalline phase for Zr and ZrSi. Silica peaks are not visible for any of the coated particles because the estimated content of the quartz phase (0.1%) is below the 2% detection limit of the equipment, suggesting that the silica layer deposited by the method described herein is amorphous.