

Name of Presenter

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Affiliation

University of Bayreuth, Germany**Poster No. : 1-P-20****Revealing a new room temperature deposition mechanism for materials with layered-type crystal structure by a synchrotron study**

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Highlights of This Poster Presentation**➤ Motivation and Aims**

Room Temperature Aerosol Deposited Calcium Cobalt Oxide ($\text{Ca}_3\text{Co}_4\text{O}_9$) films show a different microstructure than typical AD films featuring a bigger crystallite size ($> 1 \mu\text{m}$), lower microstrain and a strong fiber texture. The presentation focusses on the explanation of this phenomenon based on synchrotron XRD and SEM investigations.

➤ Conclusion

A variant of the Room Temperature Impact Consolidation (RTIC) as new deposition mechanism for materials with layered type crystal structure is proposed and transferred to other materials.

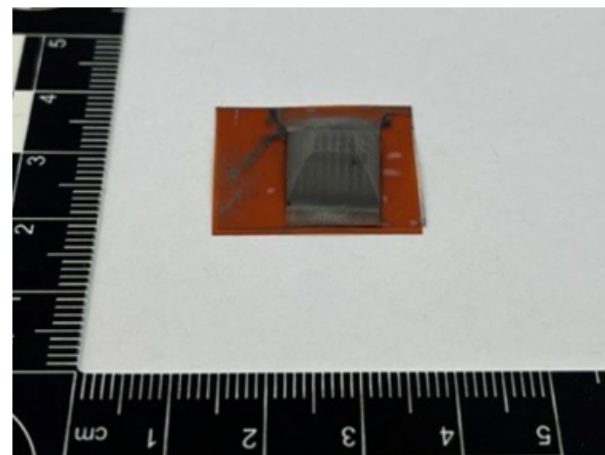


Fig. 1. Several millimeters thick Room Temperature Aerosol Deposited film of a material with layered-type crystal structure