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## Status of R&D activity on IBS SiN<sub>x</sub> coatings (Invited)

*Tuesday, 18 May 2021 00:00 (15 minutes)*

Silicon nitride (SiN<sub>x</sub>) is a well-known coating material, with a relatively high refractive index and very low mechanical loss. In this talk, we will present the development history of ion-beam sputtered amorphous SiN<sub>x</sub> coatings for gravitational-wave detectors at the Laboratoire des Matériaux Avancés (LMA-IP2I). As this research and development activity is still ongoing to date, we will present our most recent results and discuss the final steps of our roadmap towards the production of SiN<sub>x</sub> coatings of extremely low optical (scatter, absorption) and mechanical loss.

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**Session Classification:** Coating thermal noise Workshop

**Track Classification:** Workshops: Coating thermal noise workshop