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Status of KAGRA mirrors

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The Japanese gravitational wave detector KAGRA is unique since it is the only one, so far, which operates its main mirror at cryogenic temperature in order to reduce their thermal noise. To achieve good performances at such temperature, the chosen material for the mirror bulk is sapphire. After the successful finalization of the construction phase of KAGRA, during the commissioning phase, an unforeseen issue arised.

In this talk I will describe the status of KAGRA core optics and share the research performed so far on optical absorption and birefringence.

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