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## Development of Non-Evaporable Getter (NEG): Set-up and characterization

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Achieving Ultra High Vacuum (UHV) conditions is crucial for accelerator or synchrotron design. This can be done by coating copper and stainless-steel beam pipes with TiZrV Non-Evaporable Getter (NEG) thin films. In this work, we present the development of a setup for coating 40 mm and 16 mm diameter and 1 meter long pipes, studying the effects of sputtering pressure and gas on the coating properties. The coated pipes have been characterized in a setup based on the aperture method and Monte Carlo simulations have been carried out to determine coating sticking factor. The elemental composition, structure, hydrogen pumping speed, and CO saturation have been evaluated.

### Footnotes

### Funding Agency

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