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Type: **Poster Presentation**

## Design and construction of the photocathode vacuum suitcase for CARIE test facility

*Monday, 20 May 2024 16:00 (2 hours)*

This poster will discuss the design of the photocathode vacuum suitcase that we currently design and construct for the Cathodes And Radiofrequency Interactions in Extremes (CARIE) test stand. The CARIE test stand is built to test behavior of the high quantum efficiency photocathodes at strong fields. The semiconductor photocathodes must be grown and delivered to the photoinjector under ultra-high-vacuum (UHV) conditions in order to maintain their properties. This is typically done using portable UHV vacuum systems called vacuum suitcases. We will discuss the vacuum and photocathode handling design of the CARIE vacuum suitcase and the status of the suitcase construction and testing.

### Footnotes

### Funding Agency

DOE

### Paper preparation format

LaTeX

### Region represented

North America

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