



**CRANE**

## A Process to Produce Conformal Nano-Composite Coatings Using Chemical Vapor Deposition and Nano-Structures

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**Categories:**

- Materials and Manufacturing
- NSWC Crane

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The U.S. Navy is seeking a partner for licensing and collaborating on a process of applying conformal, nano-fiber or nano-particle coatings on electrical components to prevent the growth of tin whiskers or other surface area manufacturing defects.

Current types of conformal coatings applied on printed circuit boards (PCBs) are not able to prevent manufacturing defects or undesirable structures such as tin whiskers or any other whisker growth. Defects such as tin whiskers or any other whiskers that grow from the current conformal coating are not electrically insulating hence they create short circuits and failures by conducting undesired current through them.

NSWC Crane has patented a process that can be used to address undesirable structure formation (such as tin whiskers) by depositing nano-fiber, nano-particle, or nano-capsule material on an electrical circuit component with a chemical vapor deposition, physical vapor deposition, or hybrid physical-chemical vapor deposition, and electro-spinning.

**People:**

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**Intellectual Property:**

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