

Simpler, Defect-free Assembly of 3D Metal-Dielectric Nanoarrays for Surface Plasmon Applications

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- Materials and Manufacturing
- Micro & Nanotechnologies

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- Plasmonics

Researchers at Purdue University have developed a new nanoassembly methodology that occurs under wet condition, enabling defect-free integration of various quasi-3D plasmonic nanoarrays with a desired receiver substrate. Unlike many current approaches, the entire technology assembly occurs exclusively in distilled (DI) water at room temperature without the need of chemical or thermal treatments. Through a comprehensive set of data gained from experimental, computational, and theoretical studies, researchers have gained insight into the optimal conditions for controllable, repeatable, and defect-free outcomes.

Advantages:

- Defect-free
- Simpler
- Repeatability

Potential Applications:

- 3D Metal-Dielectric Nanoarray

People:

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Intellectual Property:

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