
ACTIVE PLASMONIC NANOMATERIALS FOR BIOMEDICAL APPLICATIONS

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Abstract: Stimuli-responsive nanomaterials are crucial in biomedical applications, revolutionizing next-generation medical equipment and treatments. Plasmonic nanoparticles (such as Au and Ag) stand out for their unique responsiveness to various stimuli, notably light, owing to their distinctive optical and morphological properties. In this presentation, I will provide an overview of recent advancements made in nanomaterial-based biomedical applications. In particular, I will present and discuss a novel class of smart biomedical devices, from biosensors to innovative to multifunctional face masks. Additionally, I will share our research findings on active plasmonic-based photo-thermal therapy, showcasing its efficacy in combating cancer and treating cardiac injuries.

References

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