



**nanomaterials**



*Special Issue Reprint*

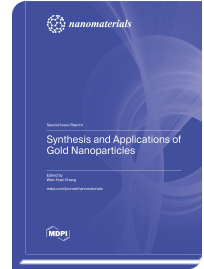
## **Synthesis and Applications of Gold Nanoparticles**

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ISBN 978-3-7258-4377-0 (Hardback)

ISBN 978-3-7258-4378-7 (PDF)



This Special Issue on gold nanomaterials presents a comprehensive overview of their synthesis and varied applications. It highlights the unique properties of gold nanoparticles (AuNPs), which are pivotal in catalysis, biomedicine, and environmental science. The articles discuss various synthesis methods, such as chemical reduction and green synthesis, and analyze how these methods influence nanoparticle morphology and functionality. Additionally, this issue covers surface modification techniques that improve the stability and targeting of gold nanomaterials in biological contexts. Key advancements in their applications for diagnostic imaging, photothermal therapy, and antibacterial treatments are also featured, providing insights that pave the way for future research and practical applications in this innovative field.



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