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Nanoscaled Gold and Silver: Simultaneous Removal and Transformation to Functional Materials

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Graphical abstract

A novel "acid-assisted cool welding" technology with efficiency and facility was proposed to remove nanoscaled Ag and Au from wastewater. Simultaneously, some functional materials like porous nanostructures which exhibited stable ability for cleaning other pollutants for instance 4-nitrophenol, could be obtained. Those provide a sustainable way to merge the recovery of noble metal NPs as pollutants and reuse of recovered noble metallic NPs.