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**(54) Title (EN):** PLASMONIC STRUCTURES, METHODS FOR MAKING PLASMONIC STRUCTURES, AND DEVICES INCLUDING THEM

**(54) Title (FR):** STRUCTURES PLASMONIQUES, PROCÉDÉS DE FABRICATION DE STRUCTURES PLASMONIQUES ET DISPOSITIFS LES COMPRENANT

**(57) Abstract:**

**(EN):** The present invention relates generally to plasmonic structures, methods for making them, and devices including them. In one aspect, a plasmonic structure includes a plurality of metal particles disposed on a substrate; and one or more metal structures electrically coupled to and disposed on a surface of each of the plurality of metal particles. The metal structures have a structure that is different than the structure of the metal particles. The metal structures can be grown, for example, by electrodeposition on the metal particles. Growth of such metal structures can tune the response of the plasmonic structure.

**(FR):** La présente invention porte d'une manière générale sur des structures plasmoniques, sur leurs procédés de fabrication et sur des dispositifs les comprenant. Selon un aspect, une structure plasmonique comprend une pluralité de particules métalliques disposées sur un substrat; et une ou plusieurs structures métalliques couplées électriquement à une surface de chacune de la pluralité de particules métalliques et disposées sur celles-ci. Les structures métalliques ont une structure qui est différente de la structure des particules métalliques. Les structures métalliques peuvent être développées, par exemple, par électrodéposition sur les particules métalliques. Le développement de telles structures métalliques peut ajuster la réponse de la structure plasmonique.

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