Tentative Outline

Special/Thematic Issue for the journal "Current Nanomaterials (CNM)"

Title of the Thematic Issue: <u>Numerical Computation of Metallic Materials of Additive Manufacturing Technology</u>

Guest Editor: Jian-Ming Lu, Researcher Fellow

- **Scope of the Thematic Issue:**

Elementary metallic substances and alloys are widely used in the fields of machinery, aerospace, medical treatment, modeling and design etc. According to the emerging technology development cycle report recently released by the international research and consulting organization Gartner in 2019, additive manufacturing will migrate from microscale to nanoscale level. The application of elementary metallic substances and alloys of additional manufacturing requires the considerations of physical and mechanical characteristics of the metallic powder, which are also the trend of post classical computing and communication. In your submitting paper, the numerical methods by molecular dynamics simulation method or other numerical skills are used to explore pure metals and metallic alloys powders, and obtain physical properties by means of material structure, powder particle size, heating rate, melting temperature, coalescence temperature, etc., in order to effectively reduce the time and cost of computation.

Keywords: metal; alloy; additive manufacturing; numerical method; computation.

Sub-topics:

The sub-topics to be covered within the issue should be provided:

- ➢ Additive manufacturing
- ➢ 3D printing
- ➢ Numerical computation

Schedule:

- ✦ Thematic issue submission deadline: 2023/12/31

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