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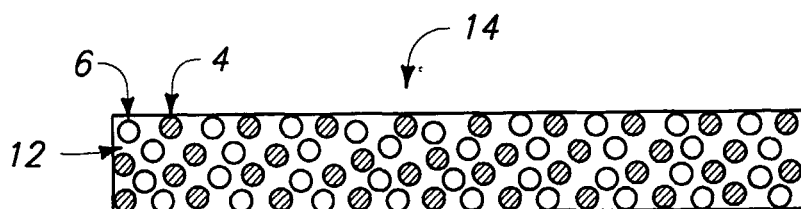
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(54) Title: PHYSICAL VAPOR DEPOSITION TARGETS AND METHODS OF FORMATION



(57) Abstract: A method includes combining a solid first material and a solid second material and melting at least a portion of the first material sufficient to coat the second material and any remaining first material. An approximately homogenous distribution of the second material can be formed throughout the liquid phase of the first material. The first

material liquid phase can then be solidified to define a composite target blank exhibiting an approximately homogenous distribution of the solid second material in a matrix of the solidified first material. The first material can comprise SE and the second material can comprise Ge and/or Ag. The composite target blank can include at least about 50 vol % matrix. The first and second materials can be powdered metals. Accordingly, a physical vapor deposition target can include a matrix of a first material and an approximately homogenous distribution of particles of a second material throughout the first material matrix. The second material can include powders exhibiting particles sizes no greater than about 325 mesh.