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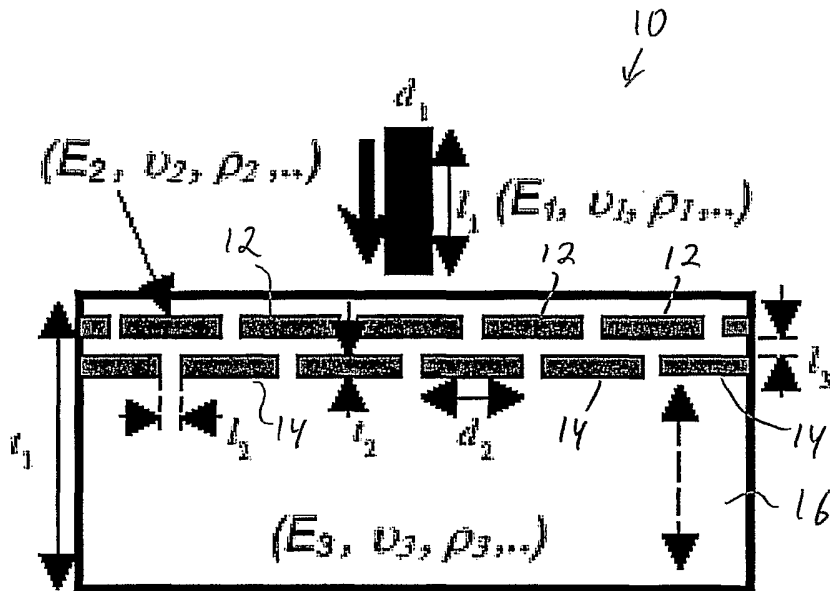
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(54) Title: HIERARCHICAL MATERIAL ASSEMBLIES AND ARTICLES FOR USE IN PROJECTILE IMPACT PROTECTION



(57) Abstract: A hierarchical composite armor is disclosed for protection against projectile impact comprising a plurality of platelets (12, 14) and a matrix (16) substrate. The plurality of platelets (12, 14) are distributed in at least a first layer and in a second layer parallel to the first layer wherein the distribution of the platelets (14) in the second layer is at least slightly offset from and overlaps the distribution of platelets (12) in the first layer. The platelets (12, 14) are less thick than the overall thickness of the composite armor, and the platelets include a first material. The matrix (16) substrate encapsulates the platelets (12, 14), and the matrix (16) substrate is different than the first material.

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| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
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