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(54) Title: MULTI-LAYER THERMAL-REGULATING SURFACE COATING AND RELATED METHODS

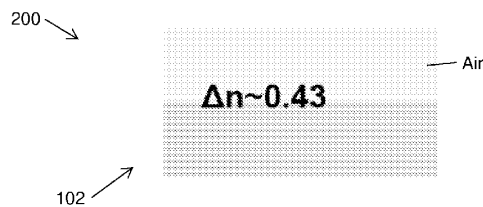


FIGURE 2A

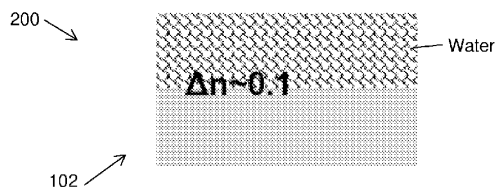


FIGURE 2B

(57) Abstract: A multi-layer thermal-regulating surface coating and a method for fabricating a multi-layer thermal-regulating surface coating are provided. The multi-layer thermal-regulating surface coating includes an outer layer. The outer layer includes a material having a porous structure. In a dry state, a first refractive index of the material mismatches a second refractive index of air in pores of the porous structure to exhibit a first solar transmittance and in a wet state, the first refractive index of the material matches a third refractive index of water in the pores of the porous structure to exhibit a second solar transmittance.

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