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(54) **Title**: IMPROVED SILICON THIN FILM DEPOSITION FOR PHOTOVOLTAIC DEVICE APPLICATIONS

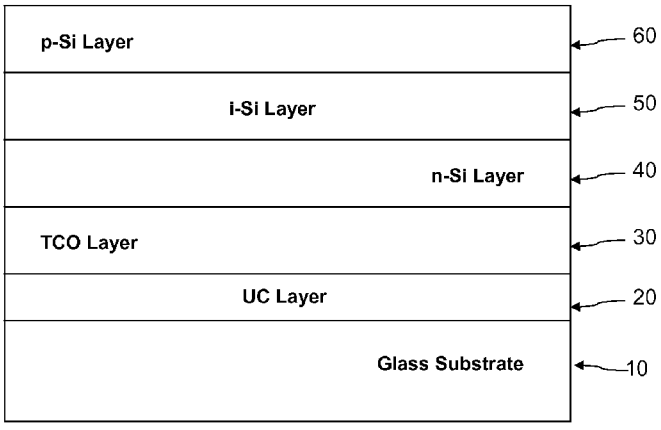


Figure 2

(57) **Abstract**: The present invention provides for cost-efficient methods for on-line deposition of semi-conducting metallic layers. More specifically, the present invention provides on-line pyrolytic deposition methods for deposition of p-type, n-type and i-type semi-conducting metallic layers in the float glass production process. Furthermore, the present invention provides for on-line pyrolytic deposition methods for production of single-, double-, triple- and multi- junction p-(i-)n and n-(i-)p type semi-conducting metal layers. Such p-type, n-type and i-type semi-conducting metal layers are useful in the photovoltaic industry and attractive to manufacturers of photovoltaic modules as "value-added" products.

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