

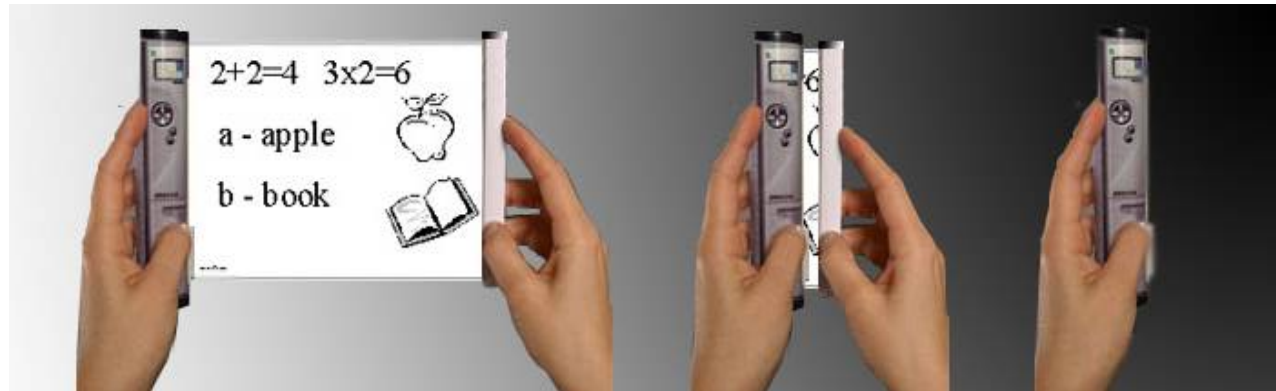
Robust Flexible Conductors for Flexible Display Applications

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The convergence of many technologies like organic electronics, electronic ink, thin film polarizers and many others, is rapidly making flexible displays a reality. However, the progress in this industry has been in part hindered by brittle conductors which fail catastrophically when bent, rolled or flexed. Crawford and Zaslavsky have developed a unique solution to address this problem by fabricating thin metal films with nano and mesoscales on polyethylene terephthalate (PET) substrates. In comparison to Indium tin-oxide films which crack at strains as low as 2%, these films have been shown to be conductive at strains as much as 38%.

(a) An artist's rendition of a flexible display panel which can be rolled up into a compact size when not being viewed.



(b) A section of Indium tin-oxide on a plastic substrate showing cracks in the conductive layer when bent.

