

**Electronic Supplementary Information (ESI):** Calculated weights of different reagents and the melting temperatures of the different glass nanocomposites  $x\text{Ag}_2\text{O}-(1-x)(0.3\text{CdO}-0.7\text{MoO}_3)$ . The samples are designated using the parameter  $x$ , i.e., concentration of  $\text{Ag}_2\text{O}$  in the glass nanocomposite.

Sample designation ( $x$ )	$\text{AgNO}_3$ (g)	$\text{CdO}$ (g)	$\text{MoO}_3$ (g)	Melting temperature (°C)
0.0	0.0	0.2766	0.7234	950
0.1	0.0017	0.2762	0.7226	935
0.2	0.0026	0.2758	0.7215	930
0.3	0.0044	0.2753	0.7202	920
0.5	0.0104	0.2737	0.7159	900
0.7	0.0240	0.2699	0.7061	875
0.9	0.0865	0.2526	0.6608	850