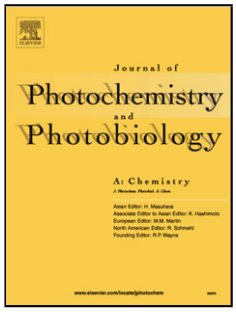

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Authors: W.G.C. Kumarage, R.P. Wijesundera, V.A. Seneviratne, C.P. Jayalath, N. Kaur, E. Comini, B.S. Dassanayake

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$MgCl_2$ activation of CdS films: an alternative for $CdCl_2$

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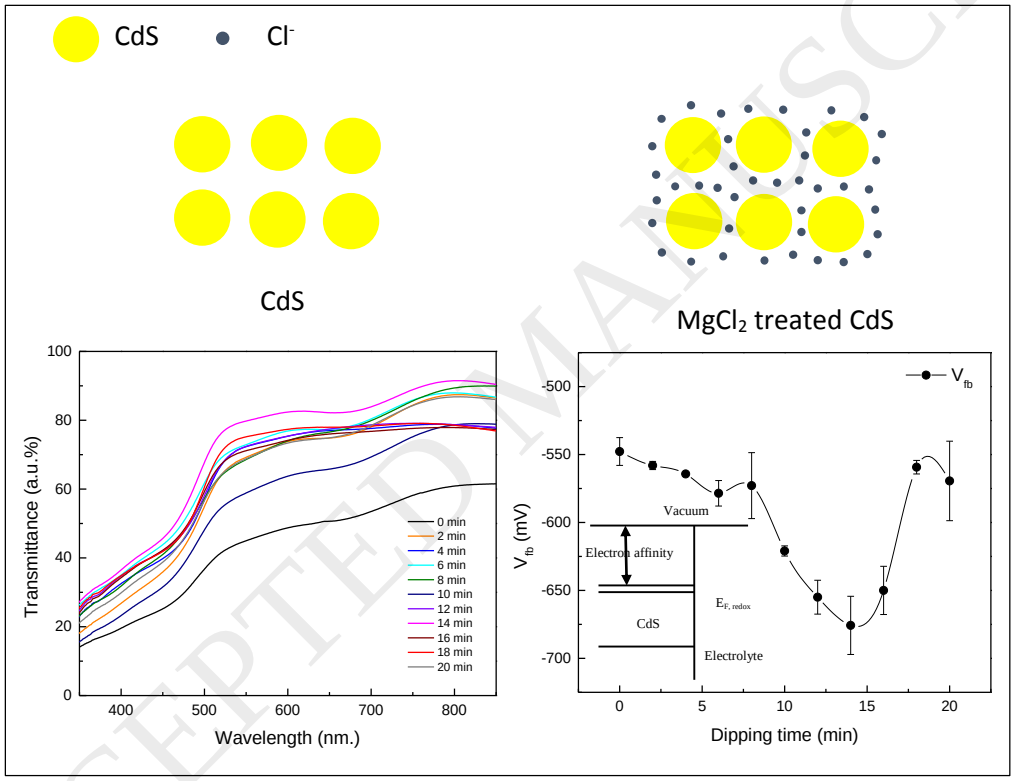
Graphical abstract



Highlights

- Environmental friendly, non-toxic Cl activation using $MgCl_2$ on CdS thin films is reported.
- $MgCl_2$ treatment passivates grain boundaries and improves the carrier concentration and effective surface area of CdS.
- Increasing duration of $MgCl_2$ treatment leads to formation of large and densely packed grain surfaces.
- PEC cell parameters; V_{OC} and I_{SC} of $MgCl_2$ treated films were higher than untreated CdS films.