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# Study of structural , electrochimical and antibacterial properties of PVK pur and Doped with TiO<sub>2</sub>

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**Abstract :** Polymeric thin films of poly (N-vinylcarbazole) (PVK) with nano-crystalline titanium oxide (TiO) were fabricated by using bath deposition method. The complexation of the polymer was confirmed by Fourier transform infrared (FTIR) and UV-Visible studies, the antibacterial activity was tested with various percentage, from 1wt%, 3wt%, 5WT% of doping, with staphylococcus aureus, Bacillus subtilis and Escherichia coli in the absence of light.

**Keywords :** Poly (N-vinylcarbazole), Antibacterial Activity, Titanium Oxide (TiO<sub>2</sub> ), DMSO