

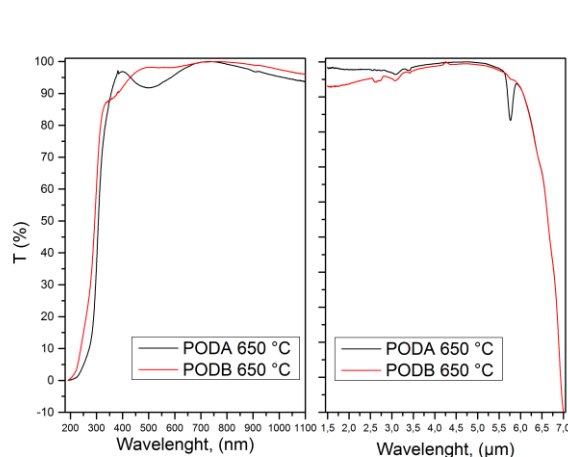
# Synthesis of Tin (IV) Heteroaryl Alkenols and Their Susceptibility Towards Fluorination

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In our work, we focused on reactions of organometallic tin (IV) precursors, such as  $\text{Sn}(\text{O}^t\text{Bu})_4$ ,  $\text{Me}_3\text{SnCl}$ , and  $\text{Me}_3\text{SnF}$ , with  $\beta$ -heteroarylalkenates: 3,3,3-trifluoro(pyridin-2-yl)propen-2-ol, 3,3,3-trifluoro(dimethyl-1,3-oxazol-2-yl)propen-2-ol, and 3,3,3-trifluoro(1,3-benzthiazol-2-yl)propen-2-ol [1]. Obtained compounds were exposed to various fluorination agents ( $\text{HF}$ ,  $\text{XeF}_2$ , and  $\text{NH}_4\text{F}$ ) and their reactivity towards them was compared to already published Sn (II)  $\beta$ -heteroarylalkenates [2-3]. Subsequent CVD experiments made by partner institution (Murauskas, Abrutis, University of Vilnius) have proved that our Sn (IV)  $\beta$ -heteroarylalkenates are suitable precursors for transparent  $\text{SnO}_2$  thin films used in optoelectronics.



**Figure 1** Transparency of  $\text{SnO}_2$  prepared by deposition at 650 °C of PODA ( $\text{Sn}(\text{O}^t\text{Bu})_2(2\text{-pyCHCOCF}_3)_2$ ) and POD B ( $\text{Sn}(\text{O}^t\text{Bu})_2(4,5\text{-meOxCHCOCF}_3)_2$ )

## References:

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