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# INVESTIGATION OF STRUCTURE AND PHYSICAL PROPERTIES OF PRPYANYLIDENE FRAGMENT CONTAINING MOLECULAR GLASSES WITH TRITYLOXYRTHYL AND TERT-BUTYL GROUPS

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Low-molecular mass organic compounds with electron donating fragment bounded through 4H-pyran-4-ylidene (pyranylidene) π-conjugated system with electron acceptor fragment in their molecules show potential applications in organic photonics as potential materials with light-emitting and amplified spontaneous emission properties. These characteristics of the above mentioned molecules depend on electron acceptor, electron donor fragments and their placement in the structure. Additional incorporation of trityloxyethyl and *tert*-butyl groups enables the possibility to produce the thin solid films of the already mentioned molecules [Fig.1.] from volatile organic solvents (dichloromethane or chloroform) [1-2].

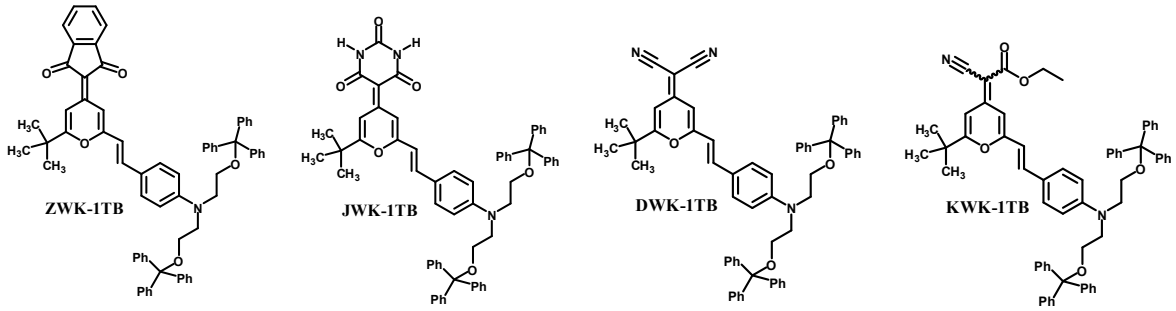


*Fig.1 Chemical structures of investigated compounds*

The ability of the synthesized compounds [Fig.1.] to form thin solid films allows us to conduct physical research in solid amorphous state and opens further opportunities to use them as low-cost deposition components in optical device fabrication research. Since the investigated compound structures could be stationed in different conformations and configurations, by using the NMR spectroscopy it is possible to determine which of the possible configurations and conformations is the most stable.

In this report we will foremost describe our detailed findings on compound conformations and configurations. In addition, we will give further insight about their phisical properties which not yet been studied for these compounds.

## References


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