

**New Solvent Quenching Pressure Sensitive Paints** dedicated to model tests of wind resistance of building structures carried out in wind tunnels in order to prevent catastrophes and damage to buildings, as well as studies of environmental effects on elements of engineering solutions.

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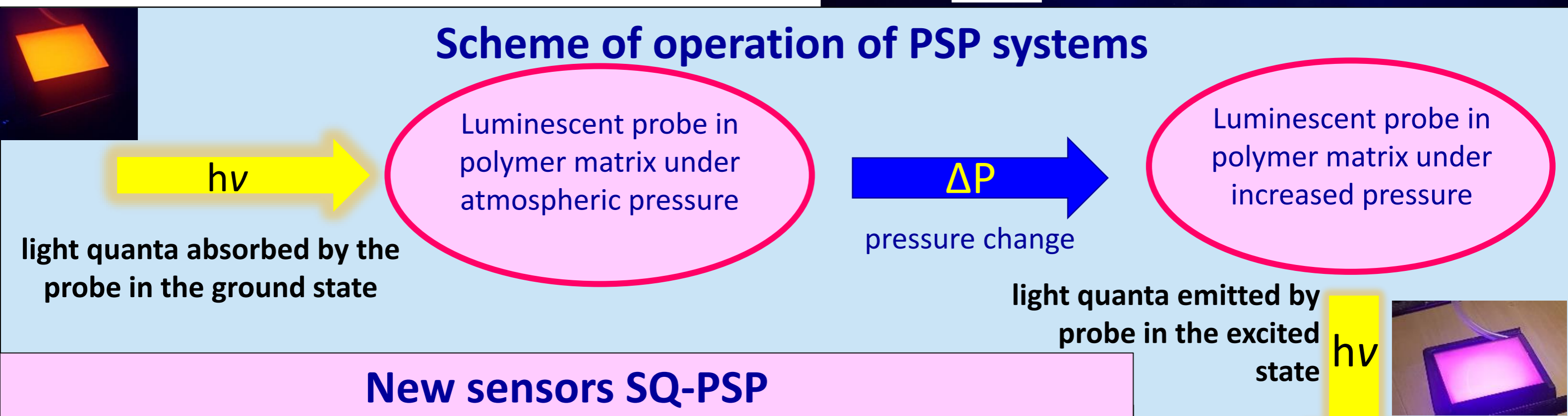
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**SQ-PSP = Solvent Quenching Pressure Sensitive Paints**

SQ-PSP are spectroscopic measurement systems for pressure mapping on buildings during aerodynamic tests for the design process, to check their wind resistance. They are characterized by very high spatial resolution and the ability to study complex solids.



**Scheme of operation of PSP systems**



**New sensors SQ-PSP**

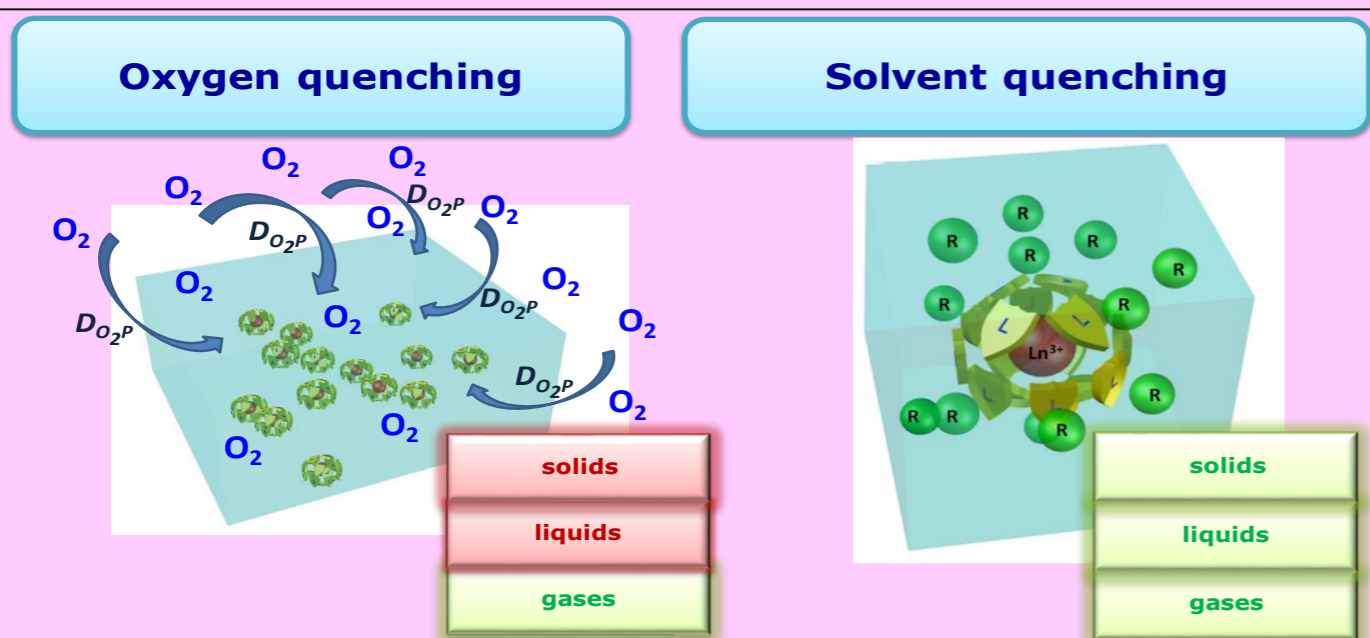


Fig.1. The mechanism of operation of PSP systems.

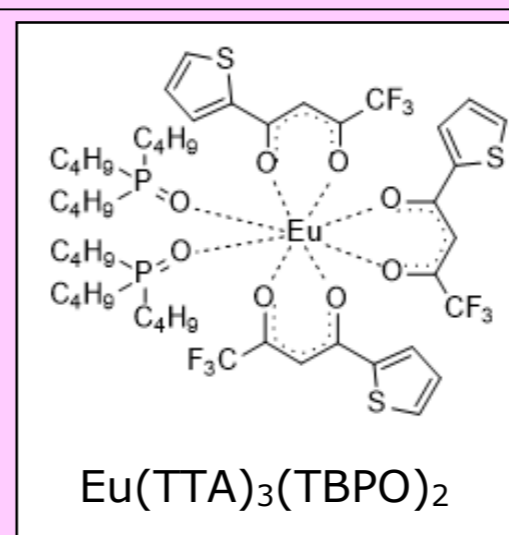


Fig.2. Structure of the pressure sensor used.

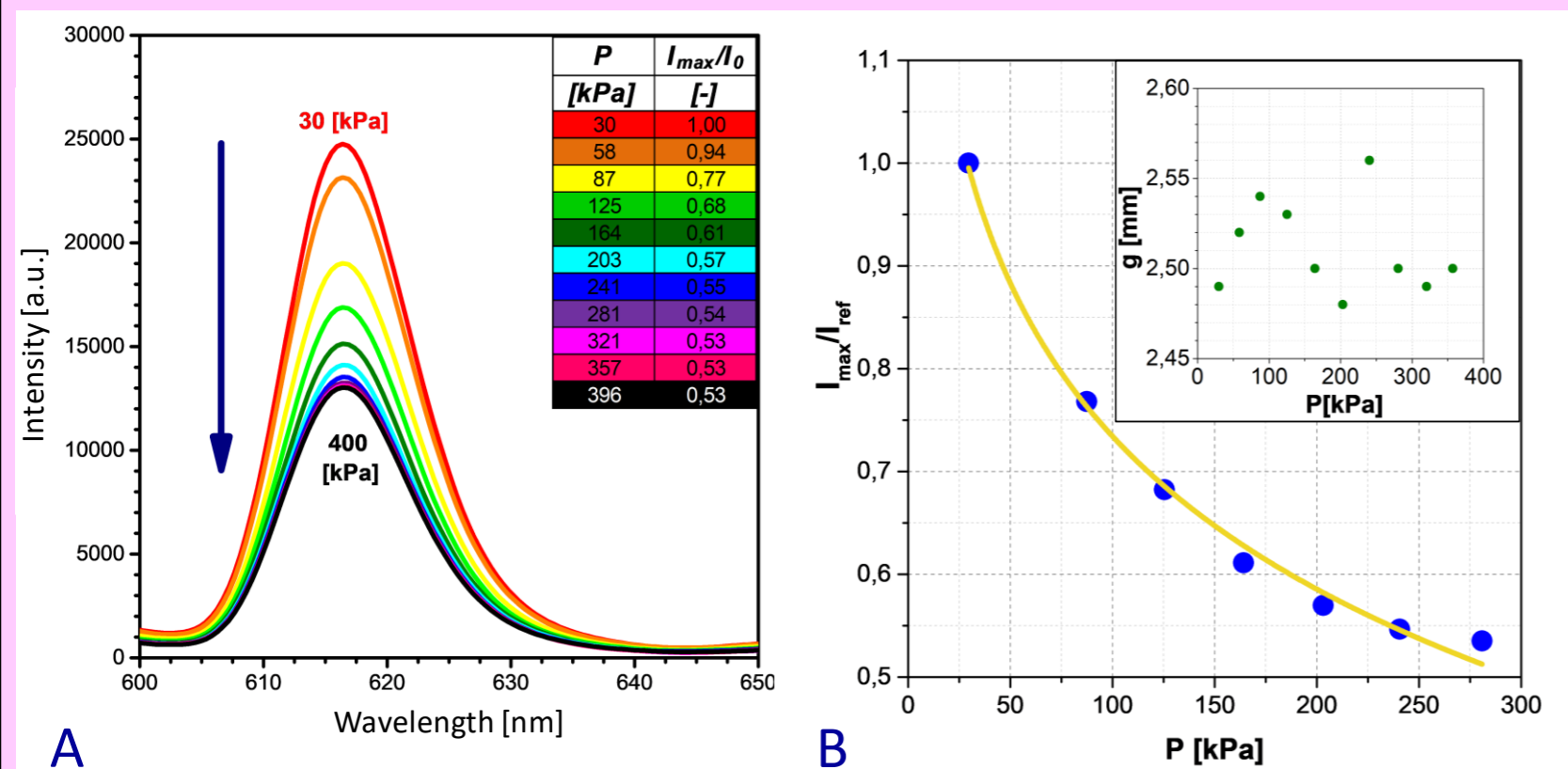


Fig.3. Calibration of the PSP system based on an acrylate matrix labeled with the europium complex Eu(TTA)3(TBPO)2: emission spectrum of the sample (A) and the dependence of the sensor luminescence intensity on the pressure and thickness of the sample (B).



Fig.4. SQ-PSP compositions based on organic-inorganic complexes.

Information on the change in the light emission characteristics from the surface of the coating

Mathematical analysis

Information on the pressure distribution on the surface of the coatings

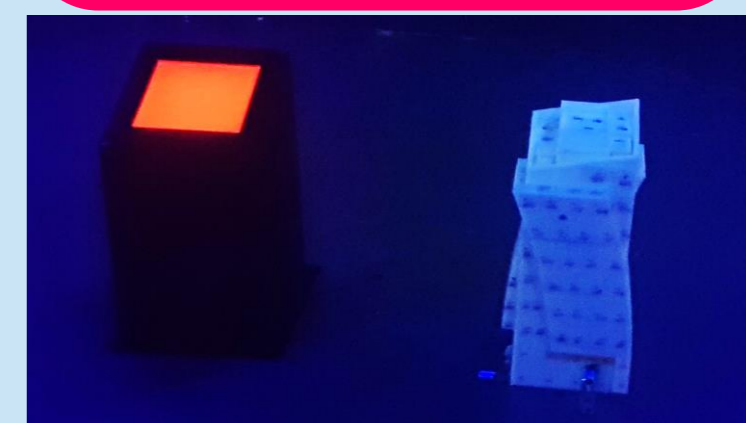


Fig.5. Comparison of PSP systems (left) with classic systems (right).