

# POLYVINYLAMINE BASED MATERIAL

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The invention refers to a material based on **polyvinylamine** and a process for its production. Born from an interaction between the polyvinylamine and graphene, the new composite can be used for the production of **membranes, coatings** with improved mechanical properties.

**Protection:** International

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## INVENTION

Membrane separation process can be applied to many **capture processes from pre-combustion to post-combustion** and are generally endowed with high flexibility and potentially low operative costs suitable. The proposed solution is a **mechanically stable material** based on polyvinylamine PVAm which can be used in different sectors including the **modification of surfaces and or interfaces**. Because of its **remarkable reactivity**, it is possible to create bonds between polyvinylamine and several polymers of different nature and it remains stable both in presence of high humidity and in direct contact with water.

## ADVANTAGES

- Simple, safe and reliable process;
- Mechanically stable material.

## APPLICATIONS

- As a membrane for the separation of CO<sub>2</sub>;
- As an additive for cellulose-based products (protective/adhesive coating).

## CONTACTS

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