

Bioenergy 2020: Development of a functionalized SBA-15 mesoporous silica matrix and its application in the purification of the ribonucleic acid

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Ribonucleic acid (RNA) is of great importance during a wide selection of laboratory tests, especially within the diagnosis of viral, bacterial and parasitic diseases, the diagnosis of hereditary disorders and tumors, also as basic research. To supply relevant and reliable results, the biology techniques used for such purposes require pure and intact molecules of purified RNA. RNA are often extracted from prokaryotic or eukaryotic organisms, from various heterogeneous materials, such fresh or frozen tissues, cell lines, PCR products or chemically preserved samples for an extended . Therefore, RNA purification becomes a critical step, to get good quality

RNA molecules (pure and intact). The primary is predicated on organic extraction using phenol: chloroform. The second group encompasses RNA purification methods through their ability to adsorb at specific salts, and therefore the third groups includes methods that exploit RNA isolation on isopycnic gradients. Precisely, the adsorption methods, which are based supported the power of RNA to bind to a selected surface within the presence of chaotropic salts, are one among the foremost available kits on the market, additionally to supply RNA with top quality and purity.