Nucleic acid purification using filter paper based spin column or plate

Rui Shi1, Ramsey Lewis1, Dilip Panthee2

 Department of Crop and Soil Science, North Carolina State University, Raleigh, NC
Departmentof Horticultural Science, North Carolina State University, Mountain Horticultural Crops Research & Extension Center, Mills River, NC

We describe ways to prepare spin column or 96-well spin plate using filter paper as binding material for low or high throughput cost-effective nucleic acid purification. We have confirmed that filter paper is efficient binding material for purification of different type of nucleic acids, including plant genomic DNA, plant total RNA, PCR products, and DNA from agarose gels. We also developed protocols of using filter paper in recharged or homemade spin column/plate for purification of plant genomic DNA, plant total RNA with commercial kit buffers leftover or less expensive homemade buffers.