



Shahid Beheshti University of Medical Sciences  
School of Public Health and Safety

# School of Public Health & Safety Laboratories

## Solid Waste Laboratory





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**This laboratory aims to expand research in the field of environmental, industrial, and medical wastes and has started working after establishment of the field of Environmental Health Engineering - Waste Management.**

### Laboratory expert information

Name/Last Name	E-mail	Telephone
Negin Rezaei Arshad	rezaeiarshad75@gmail.com	(+98)21 22 43 20 40 (170)

### Laboratory tools and equipment

Bomb colorimeter
Planetary mill
Digital balance
Scale, 150 kg
Furnace, 1000°C
Vacuum and controlled atmosphere furnace
Oven
Bain-marie
Heather stirrer



Ozone generator
Centrifuge
Portable humidity and temperature meter
Heating mantle

### Solid waste laboratory services

Parameter	Method
Calorific value	Calorimetry
Organic carbon	Walkley-Black
Total solids percentage	1- moisture percentage
Volatile and fixed solids percentage	Gravimetry (combustion in the furnace at 550 °C)
Density	Weight-volume relationships
Moisture percentage	Gravimetry
Size and size distribution of particles	Using standard laboratory sieves
Ash percentage	Gravimetry
pH	pH meter
EC	EC meter
Total nitrogen	Kjeldahl method



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Total phosphorus	Colorimetry
Nitrate	Colorimetry
Sodium	Flame photometry
Potassium	Flame photometry
Argentometry	Chloride
iodometry	Sulfide
The degree of maturity of compost	Germination index