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MODULE 6

Sustainable Chemical Processes and Textile Care

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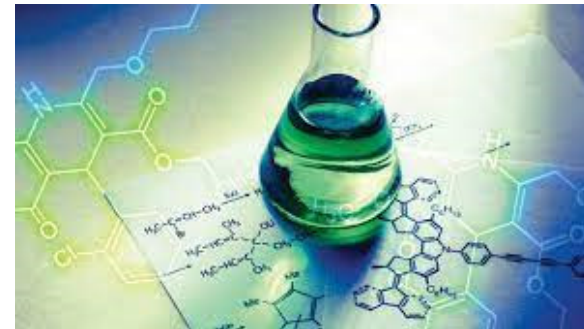
MODULE 6

Sustainable Chemical Processes and Textile Care

Unit 6.1 Sustainable Substances and Wastewater Treatment

Unit 6.2 Sustainable Pretreatment, Dyeing and Printing

Unit 6.3 Sustainable Finishing and Textile Care



Sources: <https://www.jonespackaging.com/sustainable-packaging/>; <https://amrita.edu/news/green-chemistry-and-sustainability/>; <https://www.innovationnewsnetwork.com/green-chemistry/849>



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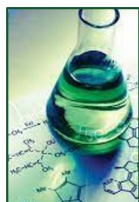
6.1

Sustainable Substances and Wastewater Treatment



6.2

Sustainable Pretreatment, Dyeing and Printing



6.3

Sustainable Finishing and Textile Care

Brief description

The module covers:

- ▶ Chemicals policy and legislation;
- ▶ Replacement of toxic dyes, pigments and auxiliaries with green alternatives;
- ▶ Textile wastewater treatment strategies for recycling purposes;
- ▶ Modern green and sustainable pretreatment, dyeing, printing and finishing processes with emphasis on plasma treatment and biotechnology;
- ▶ Nanotechnology driven by green chemistry;
- ▶ Eco-friendly laundering and eco-labelling

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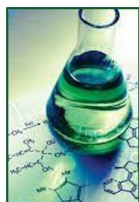
6.1

Sustainable Substances and Wastewater Treatment



6.2

Sustainable Pretreatment, Dyeing and Printing



6.3

Sustainable Finishing and Textile Care

Learning outcomes

Learners will be able to:

- ▶ Understand chemicals policy, legislation and regulations,
- ▶ Replace hazardous substances with safer alternatives,
- ▶ Apply innovative effluent treatment strategies for recycling textile wastewater,
- ▶ Introduce sustainability approach in textile pre-treatment, dyeing, printing, finishing and textile care,
- ▶ Implement nanotechnology processes supported by green chemistry,
- ▶ Apply knowledge to new sustainable and green chemical textile processes and textile care.