

Western Research

I N S T I T U T E

**World-class chemical expertise
since 1924**



Engineering



Research



Chemistry

Wyoming-based non-profit organization

- Created 1924 as a Bureau of Mines laboratory
- Non-profit 501(c)(3) since 1983
- Cooperating Agency with University of Wyoming



From lab-scale to pilot units

RenuMAT

RENewable Upcycling Materials & Asphalt Technologies

- Business unit specialized in lab-scale chemistry
- **Hydrocarbons beyond combustion** (products: asphalt binders, additives, mesophase pitch, carbon fibers... / feedstocks: coal, oil refining by-products, wastes...), **waste upcycling & circular economy** (asphalt, plastics, composites, biomass,...), **formulation, analytical chemistry & rheology**

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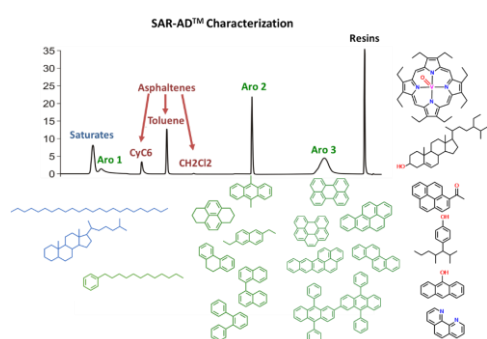
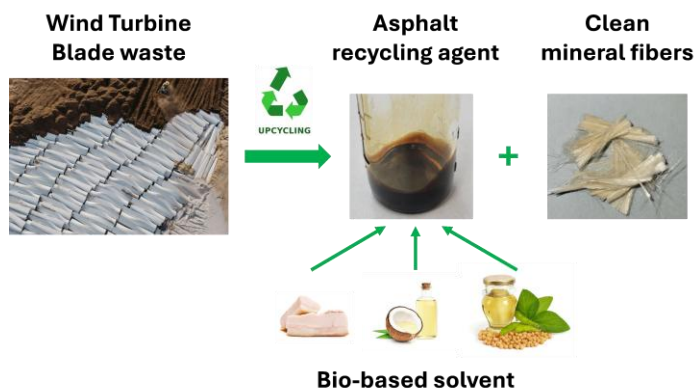
Sustainable Emerging Technologies

- Business unit specialized in pilot-scale units
- **Hydrocarbon beyond combustion, waste upcycling, refining/distillation, oil partial upgrading & Solvent DeAsphalting (SDA), catalyst development/testing, pilot/demonstration-scale plants**



Waste upcycling & circular economy

WRI creates **new patented technologies to upcycle organic waste** (reclaimed asphalt, plastics, composite materials such as wind turbine blades WTB, biomass...). For example, WTB are reacted with a biobased solvent to recover an asphalt recycling agent and clean mineral fibers.



Analytical & rheological testing

WRI develops and operates analytical and rheological **tools**. This is done for example on asphalt binders within the Asphalt Industry Research Consortium (AIRC)

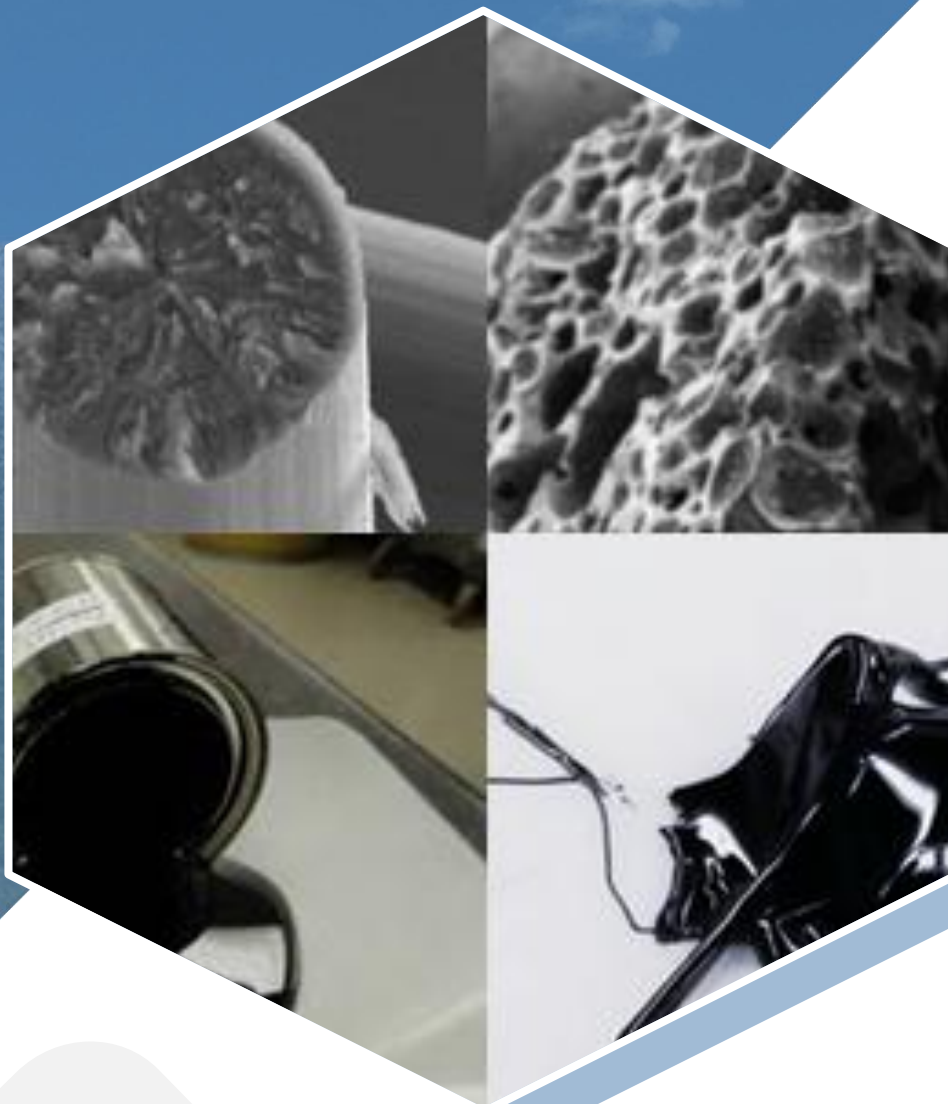
Tailor-made pilot and/or demonstration-plants

- WRI **designs, develops and operates tailor-made pilot/demonstration-scale units**, from deasphalting heavy oil, catalysts testing to waste recycling.
- We crush/separate/react solid/liquid/gas from gallon-size to higher quantities



Mission

"Partnering to innovate, develop, and commercialize technologies using advanced sustainable chemistry, analysis, and innovative engineering, for carbon, natural resources, and wastes"



Website QR
Code

WRI is eager to assist with
your needs to help you **develop,**
and commercialize technologies
using advanced **sustainable**
chemistry, analysis, and
innovative engineering

WesternResearch
INSTITUTE

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