

"3R" zero emission and energy independent carbon refinery technology **AI supported upcycling of by-products to Recycle - Recover - Reuse** **Application map 2025**

3R pyrolysis reductive thermal processing in any range up to <850°C material core temperature.

High temperature pyrolysis - reductive thermal processing >850°Celsius material core temperature processed

**Activated Carbon
Virgin & Regeneration
ADSORBENTS**

**ABC-BioPhosphate
Animal Bone Char
BIOPHOSPHATE**

**High C content
Plant BioChar
BIOCHAR**

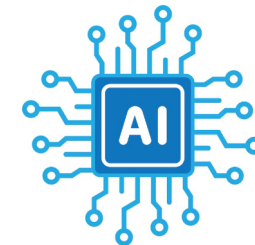
Special adsorbents and surface modified substances. Biofertilisers. Green energy.

... and other application areas, incl.
petroleum jelly, coatings, preservative.
AI Artificial Intelligence supported
to enhance 3R efficiency, improve
decision-making and drive innovation.
Original solution - original invention.



**Bio
Phosphate**

**100%
CARBON NEUTRAL**



**Industrialisation of
Carbon refinery
GRAPHENE**

**Browncoal refinery
Browncoal upcycling
ANTHRACITE**

**Pyrolysis oil refinery
Renewable energy
GREEN ELECTRICITY**

Low temperature reductive thermal processing <450°Celsius material core temperature processed

<https://BioPhosphate.net>

<https://3Rbiofarm.com>