



VTT produces research services that enhance international competitiveness of companies, society and other customers at all stages of their innovation process, and thereby creates the prerequisites for growth, employment and wellbeing.

VTT promotes the realisation of innovative solutions and new businesses by foreseeing the future needs of its customers already in strategic research.

With its 2,700 employees, VTT is the largest research organization in Northern Europe. VTT's Ventures operation creates profitable and growing technology and wellbeing as well as more effective use of VTT produced Intellectual Property Rights.

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New antibacterial agents for pharmaceutical and cosmetic industry

CURRENT SITUATION

There is an urgent need to replace potentially harmful antibacterial agents in pharmaceutical and cosmetic industry with environmentally benign new alternative products.

VTT OFFERS:

- Feasible environmentally friendly new products that can be produced in a simple way with good yield from birch outer bark.
- Products are environmentally benign and potentially non-toxic.
- They can be used as antibacterial agents in pharmaceutical and cosmetic industry to potentially replace some of the current products.
- Large amount of birch bark raw material is available as side product from wood industry (saw mills, pulp and paper industry).

NEW SOLUTIONS FROM WHITE BIRCH TREE

- White birch (*Betula* sp.) is one of the most characteristic tree species for Northern Europe and Russia therefore forming the basis for a very large wood industry.
- Betulin is the principle extractive substance of the birch bark, and it can be extracted from the outer bark of white-barked birches in amounts up to 40% of dry weight.
- Betulin is a hydrophobic, non-toxic and versatile bioactive compound which can be used as raw material to produce new environmentally benign antibacterial agents in pharmaceutical and cosmetic industry.

INTELLECTUAL PROPERTY

Patent pending (international)

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