

Natural antioxidants

DESCRIPTION

The natural antioxidants compounds obtained from plants are very efficient due to their activity in improvement in the thermal and radiation action when they are added in plastic packaging materials. Their beneficial effects on human being is the intrinsic quality in relation with people health in spite of synthesis compounds which are used currently today being toxic for biological systems.

Table 1. Isolated antioxidants from lamiaceae plants

Species	Compounds
Salvia	carosic acid, carnosol, rosmanol, rosmarinic acid
Rosemary	carosic acid, carnosol, rosmanol, rosmarinic acid
Thymus vulgaris	carosol, rosmarinic acid, carvacrol, thymol
Oregano	phenolic acids derivatives, flavonoids, tocopherols

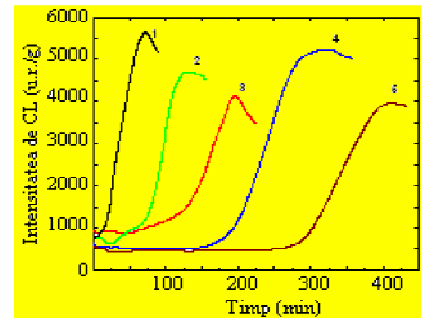


Fig. 1. Spectrum CL (air, 150°C) at thermal degradation of paraffin
(1) Simple sample; (2) oregano; (3) thymus vulgaris; (4) rosemary; (5) salvia

Table 2. Main characteristics of thermal stabilization process of some natural extracts

Extract	Witness point	Salvia	Rosemary	Thymus vulgaris	Oregano
Induction time (min)	5	275	179	100	70
Oxidation speed (ur/g·min)	982	360	517	380	769

APPLICATIONS

- solar sheets manufacture
- production of bags for transportation and storage of seeds
- improvement of storage periods for cooking oils, margarine, food essences, tinned foods
- preparation of culinary products
- high quality production of cosmetic products

USERS

- ✓ manufacturer of packaging for agriculture and food industry
- ✓ companies of vegetables conservation
- ✓ small enterprises for preparing of food products
- ✓ agricultural associations and small enterprises for the conservation of cooking products, which are preserved on long time