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ELECTROCHEMICAL COMPOSITE MATERIALS PART II

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The most known obtaining methods of composite materials are: fount, powder metallurgy, vacuum vaporization, internal oxidising, vacuum pulverization, plasma pulverization, chemical deposition through vaporization. Less used is obtaining of this materials through the electrodeposition process. The materials obtained through this technique have become known as "electrocomposites". Despite the advantages, electrochemical method is not that much used like the others methods. Although it has been realised an abundant research of the process of electrochemical composite deposition, the process mechanism is partially understood. Thanks to all advantages of the process of composite materials electrochemical obtaining, the study of this technique has lately won more attention.

ENVIRONMENTAL IMPACT OF METAL COATINGS

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The paper will present trend in finishing industry. The work is focused on few technological aspects of surfaces finishing lines. Cleaning process, hard chromium deposition, nickel plating and zinc alloys are presented. The environmental aspects of these technologies are presented too.

EXPERIMENTATION OF UNCONVENTIONAL TECHNICS FOR INDUSTRIAL WATER PURIFICATION OBTAINED IN THE STEEL PRODUCTION AND PROCESSING INDUSTRIES

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In this paper are presented the results of the laboratory and pilot experiments of the unconventional technics for industrial water purification used in the production and processing of steal. These techniques will replace or will complete the techniques of the moment, to improve the level of waste recycling, water reusal, decreasing the water necessity, and there for improving the water management on industrial platforms in conformity with the legal regulations of waste disposal.

CLEAN TECHNOLOGIES FOR SECURITY, HEALTH AND ENVIRONMENT PROBLEMS IN PREPARING, PRIMING AND PAINTING PROCESSES OF PROCESSING INDUSTRY

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In this paper there are presented the new non-polluting technologies of preparing, priming and painting of the pieces and the various domains of applying these.The speed with those methods were introduced and their present widespread use, are due to technical advantages which their offer: uniformity of coating throw even on items with complex shapes, absence of tear-drops greater corrosion protection etc.

INNOVATIVE TECHNOLOGY FOR DECONTAMINATION OF THE METALLIC MATERIALS OBTAINED FROM RADIOACTIVE ORE EXTRACTION AND PROCESSING AREAS

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In the following paper is presented a new technology for decontamination the metallic materials which come from used radioactive mining facilities; the main sketch and the advantages of this technology.

REDUCTION MEASURES OF ENVIRONMENT POLLUTION WITH VOLATILE ORGANIC COMPOUNDS OBTAINED FROM PAINTING SHOPS

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In this paper there are aspects related to the VOC from the painting materials, the impact of those materials onto the environment and health and technical measures for reducing the pollution of the environment.

RECUPERATION AND BALING OF OLD WASTE PAPER FOR REGENERATING AND REUSING

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The baling is a primary treatment of the waste sheet for storing and transport of the bale to the paper plant for reproducing. The baling process of the waste sheet contains the next operations: Selection, Crushing (optional), Baling. The advantages of the baling process: the wastw volume abatement (5 – 20 times), the posibility of bales storing on verticale line in special plates, with substantial abatement of the storage volume (5 – 20 times), the efficient of the waste sheet transport to the paper plants (abatement of the transport resourceless by 5 – 20 times for the same quantity of waste sheet).

STRATEGIES AND PROCESSES OF OUT OF USE AUTOMOBIL PRODUCTS RECYCLING

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Recycling has become an important step of the product life cycle, supposing the recovery of the products and their re-use. The work presents the actual tendencies in the field of the recycling strategies and processes in the case of the auto vehicles out of use. The work presents the activities that a manufacturer has to enterprise in order to satisfy the urgent problems of the redraw from the market of the worn out products conforming to the EU regulations regarding the recycling.

DIRECTIVE 2000/14/EC – NOISE LIMITED FOR OUTDOOR EQUIPMENT

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Outdoor equipment (OE) covers a wide range of very different mechanical devices. A survey on these types of equipment can be found in the EC directive 2000/14/EC [1]. Although the variation of OE is very wide, the predominant noise sources are similar in many cases due to the fact that most of these devices are operated by internal combustion engines. This means that there are two major noise sources on most of these devices – "engine" and "cooling system (fan)".

ESSENTIAL DEMANDS OF 2000/14/EC DIRECTIVE AND THE IMPLICATION OF APPLYING IN PRACTICE

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Directive 2000/14/EC is basis on article 95 of treaty of aderence and has the aim to armonized of state member legislations for elimination of obstacles for equipment free market. Directive determined dispositions (limits of noise, public informations about emission of permited noise and procedures of conformity assesments) regarding noise outdoor equipments. It follow into a general metter principles and concepts of modulars procedures of conformity assesments and rules regarding for conformity marking CE included in armonized tehnical directives.
Directive provide rules for new equipments feed into Romanian and European market for first time after 3rd january 2005, but not for equipments existent before this time.

HARMONIZED EUROPEAN STANDARDS REFERRING TO THE 98/37/EC AND 2000/14/EC DIRECTIVES

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For more than 70 years, earthmoving and road construction equipment have been at the forefront of any human activities for repairing devastation from natural elements or from warfare and for building houses, hospitals, roads, dams, infrastructures, contributing significantly to the development of technical, economical, and social progress in Europe and the rest of the World. Noise emission emitted to the environment by earthmoving equipment has been moved down 2 times (1989 and 1996), to satisfy EU regulations, this is in addition to industry efforts to offset the extra noise generated by engines complying with directive 97/68/EC.This also applies to specific road construction machines which were introduced for the first time into European regulations through 2000/14 EC. CE supports that stage 2 of directive 2000/14/EC will bring further benefits to EU citizens in agglomeration areas by reducing further, the total noise emission in the environment.

TRNDS CONCERNING PRODUCTS ECO-DESIGN

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The ecological design has as main purpose the obtaining of ecological products. The evaluation of the quality of a product from an ecological point of view is made by the determination of the volume of damages on the environment during the entire life cycle. The evaluation of these damages leads frequently at the increase of the time and cost of the conception/designing. The eco-design includes the development of methods for the evaluation of the ecological impact, investigation and study of the ways of the implementation of the ecological aspects in order to increase the performances during the development of the product.