

FCR 7

Office of the President
June 11, 2002

Members, Board of Trustees:

PATENT ASSIGNMENT REPORT

Recommendation: that the patent assignment report for the period April 1, 2002 through May 31, 2001, be accepted.

Background: FCR 5, dated March 4, 1997, authorized that all future copyright and patent filings and prosecutions be conducted by the University of Kentucky Research Foundation (UKRF), and that the Vice President for Research and Graduate Studies or his designee be authorized to execute any needed documents to obtain appropriate patent or copyright protection. Quarterly reports on patent and copyright applications are to be submitted to the Finance Committee of the Board.

Action Taken: Approved Disapproved Other _____

PATENT ASSIGNMENT
QUARTERLY FOR THE PERIOD April 1, 2002 through May 31, 2002

Patents

The following assignments on behalf of the Board of Trustees to the University of Kentucky Research Foundation have been executed:

1. U.S. Patent Serial Number: (to be assigned), filed (to be filed), titled “TRANSGENIC PLANTS EXPRESSING MIND OR MINE AND AN EFFICIENT METHOD FOR PLANT CHLOROPLAST TRANSFORMATION AND GENE EXPRESSION”. Inventors: Drs. Randy Dinkins, M.S. Srinivasa Reddy and Glenn B. Collins. This invention concerns transgenic plant which contain large chloroplasts. The transgenic plant of the present invention comprises within its genome a foreign *MinD* or *MinE* gene or a foreign gene which expresses a protein which has the same functional activity as the *Arabidopsis thaliana* MinD or MinE protein. This invention further concerns a method of producing the transgenic plants of the present invention which contain large chloroplasts. Finally, the present invention concerns a method of transforming the chloroplasts genome of the transgenic plants of the present invention which contain large chloroplasts.

2. U.S. Patent Serial Number: (to be assigned), filed (to be filed), titled “SYSTEM AND PROCESS FOR PROVIDING AUXILIARY INFORMATION FOR A PACKET-SWITCHED NETWORK OF SHARED NODES USING DEDICATED ASSOCIATIVE STORE”. Inventors: Drs. Kenneth L. Calvert and James N. Griffioen. This invention provides a system and a process for providing auxiliary information about a distributed network of shared nodes, at least a plurality of the nodes being adapted for receiving at least one type of ESP- (associative ephemeral store processing) packet. Available for access at each of the plurality of EST-adapted nodes is a dedicated associative store wherein a value, if bound to a tag, is only accessible as a bound (tag, value) pair for a short time period. Different types of packets are contemplated for routing through the ESP-capable plurality of nodes such as those arbitrarily identified herein as a “first” and “second” type: each first type packet has at least one field comprising an opcode identifying an instruction, and a tag; each second type packet has an opcode identifying an instruction and an LOC field containing an identifier of a location for execution of an operand by the second packet instruction at any one of the ESP-capable plurality of nodes. In another aspect, each of the ESP-capable plurality of nodes has input and output port units and a centralized unit; an associative store may be dedicated to one or more of the port units as well as to the centralized location.

3. U.S. Patent Serial Number: (to be assigned), filed (to be filed), titled “PROCESS FOR THE CONTINUOUS PRODUCTION OF ALIGNED CARBON NANOTUBES”. Inventors: Drs. David N. Jacques and Rodney J. Andrews.

This invention provides novel methods and apparatus for continuous production of aligned carbon nanotubes. In one aspect, the method comprises dispersion of a metal catalyst in a liquid hydrocarbon to form a feed solution, and volatilizing the feed solution in a reactor through which a substrate is continuously passed to allow growth of nanotubes thereon. In another aspect, the apparatus comprises a reactor, a tube-within-a-tube injector, and a conveyor belt for passing a substrate through the reactor. The present invention further discloses a method for restricting the external diameter of carbon nanotubes produced thereby comprising passing the feed solution through injector tubing of a specified diameter, followed by passing the feed solution through an inert, porous medium. The method and apparatus of this invention provide a means for producing aligned carbon nanotubes of a particular external diameter which is suitable for large scale production in an industrial setting.