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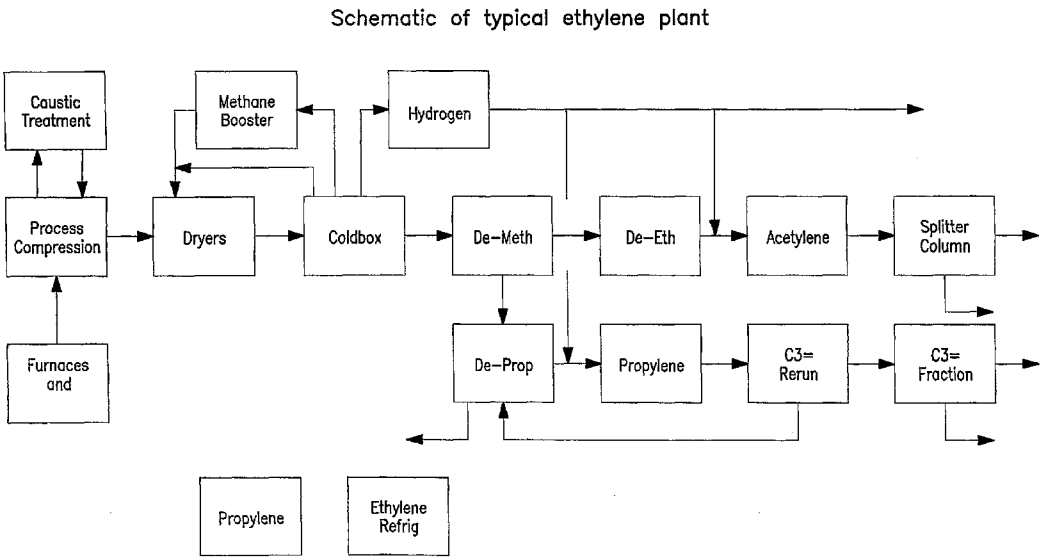
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(54) **Title:** APPLICATION OF ABNORMAL EVENT DETECTION TECHNOLOGY TO OLEFINS RECOVERY TRAINS



(57) **Abstract:** The present invention is a method for detecting an abnormal event for process units of an ethylene processing system. The method compares the operation of the process units to a model developed by principal components analysis of normal operation for these units. If the difference between the operation of a process unit and the normal operation indicates an abnormal condition, then the cause of the abnormal condition is determined and corrected.

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