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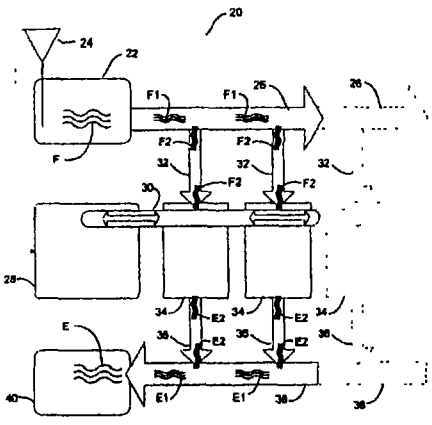
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(54) Title: METHOD AND APPARATUS FOR DECONTAMINATING FLUIDS USING ULTRAVIOLET RADIATION



G00002

(57) Abstract: A method and apparatus (20) for decontaminating a fluid (F), particularly water and wastewater, uses pulsed ultraviolet (UV) light (52) in an automatic pump driven configuration that separately and in real time adjusts each UV reactor module for both water flow and UV power (average and peak intensity) to accommodate a wide range of influent conditions, thereby producing the quality of water discharge desired by the operator. Process control is configured on the basis of a UV transmission-based feedback control loop and on a truly active and independent adjustment of each reactor module, as opposed to the relative passive and dependent adjustment techniques of the prior art. By matching the condition of the source water to the amount of UV dosage required to produce from it the desired water discharge quality, and then achieving this dosage in real time by the most practical optimum combination of average/peak power and variable pump rate, the method and apparatus represent a new way of achieving automated, high efficiency wastewater decontamination.

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