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(21) International Application Number: PCT/US00/09608 (22) International Filing Date: 11 April 2000 (11.04.00) (30) Priority Data: 09/290,633 12 April 1999 (12.04.99) US (71) Applicant: OVONIC BATTERY COMPANY, INC. [US/US]; 1707 Northwood, Troy, MI 48084 (US). (72) Inventors: FETCENKO, Michael, A.; 429 Daylily Drive, Rochester Hills, MI 48307 (US). YOUNG, Kwo; 4131 Morehead Drive, Troy, MI 48098 (US). OVSHINSKY, Stanford, R.; 2700 Squirrel Road, Bloomfield Hills, MI 48013 (US). REICHMAN, Benjamin; 3740 MacNichol Trail, West Bloomfield, MI 48116 (US). KOCH, John; 6150 Three Lakes Drive, Brighton, MI 48116 (US). MAYS, William; 14850 Arcola, Livonia, MI 48154 (US). (74) Agents: SCHUMAKER, David, W. et al.; Energy Conversion Devices, Inc., 1675 W. Maple Road, Troy, MI 48084 (US).	(81) Designated States: AU, BR, CA, CN, IN, JP, KR, MX, RU, SG, UA, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>	
(54) Title: MODIFIED ELECTROCHEMICAL HYDROGEN STORAGE ALLOY HAVING INCREASED CAPACITY, RATE CAPABILITY AND CATALYTIC ACTIVITY (57) Abstract A modified Ti-V-Zr-Ni-Mn-Cr electrochemical hydrogen storage alloy which has at least one of the following characteristics: 1) an increased charge/discharge rate capability over that the base Ti-V-Zr-Ni-Mn-Cr electrochemical hydrogen storage alloy; 2) a formation cycling requirement which is reduced to one tenth that of the base Ti-V-Zr-Ni-Mn-Cr electrochemical hydrogen storage alloy; 3) no chemical/thermal activation of the modified alloy is required to attain full operating capacity as is required by the base Ti-V-Zr-Ni-Mn-Cr electrochemical hydrogen storage alloy; and 4) an oxide surface layer having a higher electrochemical hydrogen storage catalytic activity than the base Ti-V-Zr-Ni-Mn-Cr electrochemical hydrogen storage alloy.		