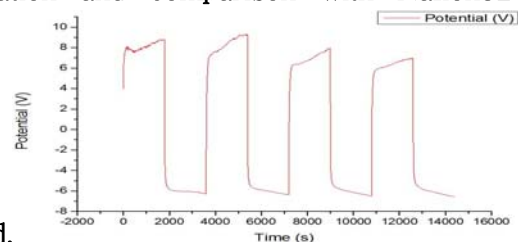


Studies of non-aqueous vanadium redox flow battery: Charging-discharging efficiency for Na- $\beta$ -alumina separator이보열, 문일식<sup>†</sup>

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This present work, the Na-B-alumina separator performance evaluated using vanadium (III) acetylacetonate in non-aqueous electrolyte. Initial operation of charging-discharging of vanadium (III) was performed using Na-B-alumina separator and its result displayed by below figure. There found Charging-discharging cycles with potential limits of 6 V to -4 V at current density of 10 mA cm<sup>-2</sup> explains Na-b-alumina can be used in non-aqueous RFBs though it shows high voltage limits during charging-discharging. A vanadium (III) concentration variation, current density variation and comparison with Nafion324



separator results will be presented and discussed.

Key words: Na-B-alumina, non-aqueous, RFB, V(III)(acetylacetonate)