

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局

(43) 国际公布日
2023 年 5 月 4 日 (04.05.2023)



(10) 国际公布号
WO 2023/072056 A1

- (51) 国际专利分类号:
F03D 7/04 (2006.01) *F03D 9/11* (2016.01)
- (21) 国际申请号: PCT/CN2022/127337
- (22) 国际申请日: 2022 年 10 月 25 日 (25.10.2022)
- (25) 申请语言: 中文
- (26) 公布语言: 中文
- (30) 优先权:
202111267812.9 2021 年 10 月 29 日 (29.10.2021) CN
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(54) Title: WIND POWER GENERATION APPARATUS AND METHOD

(54) 发明名称: 一种风力发电装置及方法

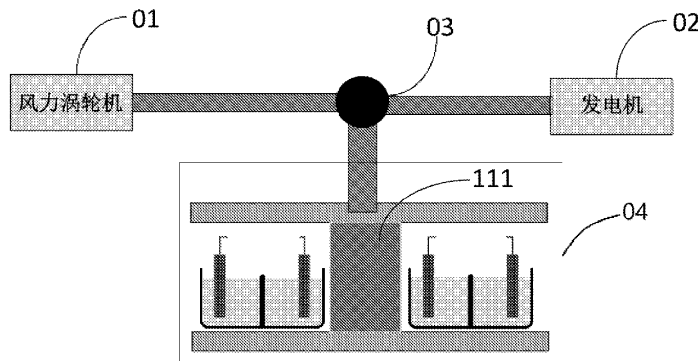


图 2

01 Wind turbine
02 Generator

(57) Abstract: Provided in the embodiments of the present invention are a wind power generation apparatus and method. The wind power generation apparatus comprises an acquisition unit, a wind turbine, a generator, an electric power storage unit and a controller, wherein the acquisition unit is used for acquiring a wind power value; the controller is used for selecting, according to the wind power value, the wind turbine to drive the generator to generate power and/or the wind turbine to drive the electric power storage unit to charge, comprising: if the wind power value is between a first wind power threshold value and a second wind power threshold value, the wind turbine only drives the generator to generate power; if the wind power value is greater than the second wind power threshold value, the wind turbine simultaneously drives the generator and the electric power storage unit to charge; and if the wind power value is less than the first wind power threshold value, the wind turbine only drives the electric power storage unit to charge or drives the electric power storage unit to output induced electric energy to the outside, wherein the first wind power threshold value is less than

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- (81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW。
- (84) 指定国(除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

本国际公布:

— 包括国际检索报告(条约第21条(3))。

the second wind power threshold value. The wind power generation apparatus can effectively convert wind energy into electric energy, thereby improving the output and stability of a wind generating set.

(57) 摘要: 本发明实施例提供一种风力发电装置及方法, 该风力发电装置包括: 获取单元、风力涡轮机、发电机、蓄电单元和控制器, 获取单元用于获取风力值; 控制器用于根据风力值选择风力涡轮机驱动发电机发电和/或风力涡轮机驱动蓄电单元充电, 包括: 如果风力值在第一风力阈值和第二风力阈值之间, 则风力涡轮机只驱动发电机发电; 如果风力值大于第二风力阈值, 则风力涡轮机同时驱动发电机和蓄电单元充电; 如果风力值小于第一风力阈值, 则风力涡轮机只驱动蓄电单元充电或蓄电单元对外输出感应电能, 其中, 第一风力阈值小于第二风力阈值。该风力发电装置能有效的将风能转化成电能, 提高风力发电机组的出力及稳定性。