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(81) **Designated States** *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,

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(54) **Title**: REMOVING NOISE FROM A SEISMIC MEASUREMENT

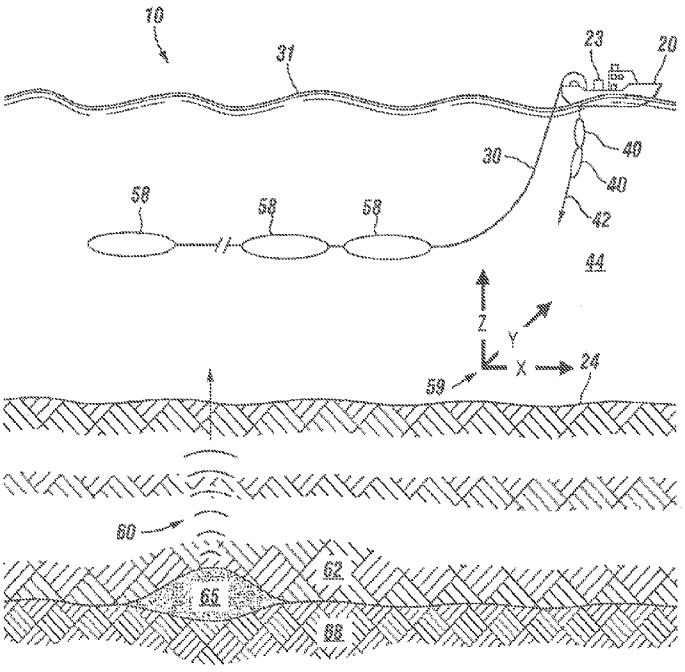

FIG. 1

(57) **Abstract**: A technique includes decomposing a signal that is derived from a seismic acquisition into a plurality of signals such that each signal is associated with a different frequency band. For each signal of the plurality of signals, the technique includes performing the following: decomposing the signal into subbands in successive stages, where the subbands are associated with at least different frequency ranges of the signal; selectively applying adaptive noise attenuation in between the successive stages such that the stages decompose noise-attenuated subbands; and reconstructing the signal from the subbands resulting from the decomposition. The technique includes combining the reconstructed signals.

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KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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G01V 1/28; G01V 1/38; G01V 1/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: decompose, frequency, band, sub, wavenumber, wavelet, noise, attenuate and similar terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0285383 A1 (AN, P.) 20 November 2008 See the whole document.	1-23
A	US 2003-0078734 A1 (OZBEK, A.) 24 April 2003 See the whole document.	1-23
A	US 2003-0176975 A1 (MATTEUCCI, G. et al.) 18 September 2003 See the whole document.	1-23
A	US 2009-0103395 A1 (WILLEN, D. W.) 23 April 2009 See the whole document.	1-23

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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"&" document member of the same patent family

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