

CLAIMS

1. A wave capturing and attenuating structure comprising at least one pair of floating structures (100) each coupled with each other such that the structure is arranged along a wave-encountering line for capturing water-surface waves, wherein the respective floating structures
5 comprise:
a body (10) consisting of a floating floor (12) and a side wall (14) extended down from a perimeter of the floating floor; and
a floating member (20) connected to the floating floor (12) of said body (10) in order to support said body (10) for submerging in the water, wherein said floating member (20) comprises
10 a wave baffle (22) having at least one part of the baffle located above the water-surface level, wherein said wave baffle (22) of said floating member (20) comprises a surface formed as a vertical plane and inclined at an acute angle with respect to a line extended along the length of said body as viewed from above,
wherein each pair of said floating structures (100) is fixed together by a fixing means (30),
15 such that they are spaced apart from each other, and a passageway (E) is formed into the wave passage, and, therefore, each said floating structure (100) is forced to face an incoming wave, characterized in that said structure further comprises: a float (50) attached to the rear with respect to said floating structure (100), and the float (50) is spaced apart from said passageway (E) arranged between the pair of said floating structures (100) for attenuating the wave departed
20 from said passageway (E),
wherein said float (60, 70) comprises a floatable body (61, 71), and a support plate (68, 78) in the form of a flat plate and located below the water surface and underneath said body (61, 71) in order to assist in stabilization of said float (60, 70).
2. The wave capturing and attenuating structure according to claim 1, wherein the body
25 (10) of said floating structure (100) also includes a support plate (112) in the form of a flat plate located underneath the body (10) in order to assist in stabilization of floating structure.
3. The wave capturing and attenuating structure according to claim 1 or 2, wherein each of said floating member (20) and said float (50) is in the form of a hollow cavity.
4. The wave capturing and attenuating structure according to any one of claims 1-3,
30 wherein each of said floating member (20) and said float (50) contains a material with density less than that of water
5. The wave capturing and attenuating structure according to any one of the preceding claims, wherein, during deployment, each said floating structure (100) is fixed to a floor of a body of water.

6. The wave capturing and attenuating structure according to any one of the preceding claims, wherein the support plate (68, 78) of said body (60, 70) is mounted to the body of the float via a plurality of mounting elements (66, 76), such that the support plate (68, 78) are spaced apart from said body, and during deployment, said support plate (68, 78) is located below the water surface
5 and underneath said float in order to assist in stabilization of said float (60, 70).

7. The wave capturing and attenuating structure according to any one of the preceding claims, wherein said float (60, 70) comprises an inclined face (62, 72) arranged for facing the incoming wave.

8. The wave capturing and attenuating structure according to claim 7, wherein said inclined
10 face (72) includes at least one discharge groove (73) for laterally discharging with respect to the direction of the wave.

9. The wave capturing and attenuating structure according to claim 7 or 8, wherein said inclined face (62, 72) is inclined at an angle of about 20-60 degrees with respect to a horizontal line.