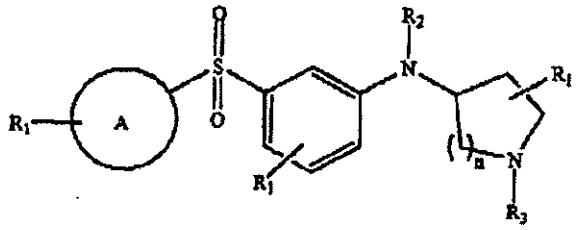
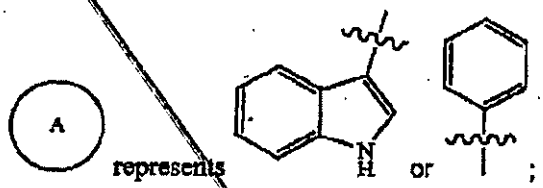
We claim:

1. A compound of the general formula (I),



(I)

Wherein,



represents or ;

at each occurrence, R_1 independently represents hydrogen, halogen, hydroxy, alkyl, alkoxy;

R_2 represents hydrogen or alkyl;

R_3 represents hydrogen or alkyl;

"n" represents 2; or their pharmaceutically acceptable salts.

2. The compound according to claim 1, which is selected from the group consisting of:
N-[2-Methyl-5-(6-chloro-1H-indole-3-yl sulfonyl)phenyl]-N-(1-methyl piperidin-4-yl)amine;
N-[2-Methyl-5-(6-chloro-1H-indole-3-yl sulfonyl)phenyl]-N-(1-methyl piperidin-4-yl)amine tartarate;
N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine hydrochloride;
N-(1-Methyl piperidin-4-yl)-N-[3 -(5-methoxy-1H-indole-3-yl sulfonyl)phenyl]amine;
N-(1-Methyl piperidin-4-yl)-N-[3-(6-chloro-1H-indole-3-yl sulfonyl)phenyl]amine hydrochloride;
N-(1-Methyl piperidin-4-yl)-N-[3-(5-fluoro-1H-indole-3-yl sulfonyl)phenyl]amine hydrochloride;
N-(1-Methyl piperidin-4-yl)-N-[2-methyl-5-(5-methoxy-1H-indole-3-yl sulfonyl)phenyl]amine tartrate;

N-(1-Methyl piperidin-4-yl)-N-[2-chloro-5-(6-chloro-1H-indole-3-yl sulfonyl)phenyl]amine hydrochloride;

N-(1-Methyl piperidin-4-yl)-N-[2-chloro-5-(5-methoxy-1H-indole-3-yl sulfonyl)phenyl]amine hydrochloride;

N-(1-Methyl piperidin-4-yl)-N-[3-(1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-methoxy-5-(1H-Indole-3-yl sulfonyl) phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-methyl-5-(5-methoxy-1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-methoxy-5-(5-methoxy-1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(Piperidin-4-yl)-N-[2-methoxy-5-(5-methoxy-1H-Indole-3- yl sulfonyl)phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-chloro-5-(6-chloro-1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(Piperidin-4-yl)-N-[2-methoxy-5-(6-chloro-1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-methoxy-5-(6-chloro-1H-Indole-3-yl sulfonyl) phenyl]amine;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methylphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-[5-(3-Bromo-4-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-[5-(3-Chloro-4-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-(5-Benzenesulfonyl-2-methoxyphenyl)-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methylphenyl]-N-(piperidin-4-yl)amine hydrochloride;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methylphenyl]-N-(1-methylpiperidin-4-yl)amine hydrochloride;

N-[5-(5-Fluoro-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-(5-Benzenesulfonyl-2-methylphenyl)-N-(3-fluoro-1-methylpiperidin-4-yl)amine;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoro-1-methylpiperidin-4-yl)amine;

N-(5-Benzenesulfonyl-2-methylphenyl)-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(piperidin-4-yl)amine hydrochloride;

N-[5-(3-Bromo-4-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartarate;

N-[5-(5-Fluoro-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartar ate;

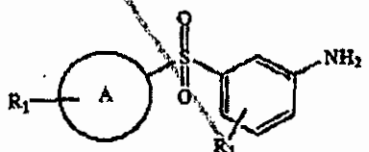
N-[5-(4-Chlorobenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartarate;

N-[5-(5-Chloro-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartarate;

N-[5-(3-Chloro-4-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartarate;

N-(5-Benzenesulfonyl-2-methylphenyl)-N-(1-methylpiperidin-4-yl)amine; and their pharmaceutically acceptable salts.

3. A process for the preparation of compound of formula (I) as claimed in claim 1, which comprises: Reductive amination of compound of formula (II),



(II)

with piperidine-4-one derivatives, using a suitable reducing agent in presence of suitable solvent at suitable temperature to obtain a compound of formula (I), wherein all substitutions are as defined in claim 1.

4. A pharmaceutical composition comprising a pharmaceutically acceptable carrier, diluent, recipient or solvate along with a therapeutically effective amount of a compound according to claim 1.

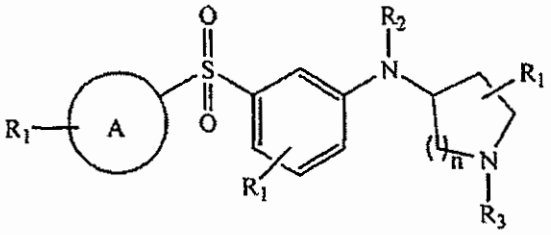
5. The pharmaceutical composition according to claim 4, for the treatment of clinical conditions such as alzheimer's, depression, cognitive memory disorders, schizophrenia or mild cognitive impairment.

6. Use of a compound according to any one of the claims 1 to 2 in the manufacture of medicament for the treatment of clinical conditions such as alzheimer's, depression, cognitive memory disorders, schizophrenia or mild cognitive impairment.

7. A compound of formula (I) as claimed in claim 1, for manufacture of a medicament for the treatment of a disorder of central nervous system related to or affected by the 5-HT_6 receptor.

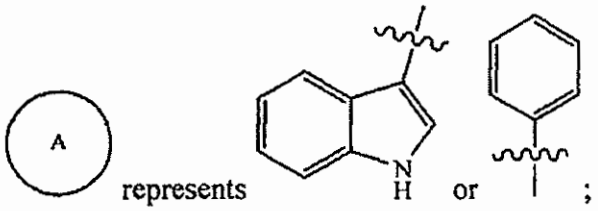
Claims:

1. A compound of the general formula (I),



(I)

wherein,



represents ; or ;

R_1 represents hydrogen, halogen, hydroxy, alkyl, alkoxy, haloalkyl, or haloalkoxy;

R_2 represents hydrogen or alkyl;

R_3 represents hydrogen or alkyl;

n represents 2; or pharmaceutically acceptable salts thereof.

2. The compound according to claim 1, which is selected from the group consisting of:
N-[2-Methyl-5-(6-chloro-1H-indole-3-yl sulfonyl)phenyl]-N-(1-methyl piperidin-4-yl)amine;
N-[2-Methyl-5-(6-chloro-1H-indole-3-yl sulfonyl)phenyl]-N-(1-methyl piperidin-4-yl)amine tartarate;
N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine hydrochloride;
N-(1-Methyl piperidin-4-yl)-N-[3 -(5-methoxy-1H-indole-3-yl sulfonyl)phenyl]amine;
N-(1-Methyl piperidin-4-yl)-N-[3-(6-chloro-1H-indole-3-yl sulfonyl)phenyl]amine hydrochloride;
N-(1-Methyl piperidin-4-yl)-N-[3-(5-fluoro-1H-indole-3-yl sulfonyl)phenyl]amine hydrochloride;
N-(1-Methyl piperidin-4-yl)-N-[2-methyl-5-(5-methoxy-1H-indole-3-yl sulfonyl)phenyl]amine tartrate;
N-(1-Methyl piperidin-4-yl)-N-[2-chloro-5-(6-chloro-1H-indole-3-yl sulfonyl)phenyl]amine hydrochloride;

N-(1-Methyl piperidin-4-yl)-N-[2-chloro-5-(5-methoxy-1H-indole-3-yl sulfonyl)phenyl]amine hydrochloride;

N-(1-Methyl piperidin-4-yl)-N-[3-(1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-methoxy-5-(1H-Indole-3-yl sulfonyl) phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-methyl-5-(5-methoxy-1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-methoxy-5-(5-methoxy-1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(Piperidin-4-yl)-N-[2-methoxy-5-(5-methoxy-1H-Indole-3- yl sulfonyl)phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-chloro-5-(6-chloro-1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(Piperidin-4-yl)-N-[2-methoxy-5-(6-chloro-1H-Indole-3-yl sulfonyl)phenyl]amine;

N-(1-Methyl piperidin-4-yl)-N-[2-methoxy-5-(6-chloro-1H-Indole-3-yl sulfonyl) phenyl]amine;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methylphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-[5-(3-Bromo-4-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-[5-(3-Chloro-4-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-(5-Benzenesulfonyl-2-methoxyphenyl)-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methylphenyl]-N-(piperidin-4-yl)amine hydrochloride;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methylphenyl]-N-(1-methylpiperidin-4-yl)amine hydrochloride;

N-[5-(5-Fluoro-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-(5-Benzenesulfonyl-2-methylphenyl)-N-(3-fluoro-1-methylpiperidin-4-yl)amine;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoro-1-methylpiperidin-4-yl)amine;

N-(5-Benzenesulfonyl-2-methylphenyl)-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

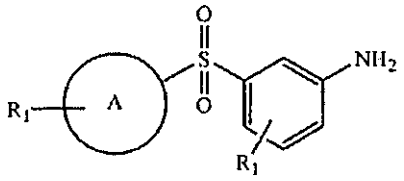
N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(3-fluoropiperidin-4-yl)amine hydrochloride;

N-[5-(5-Bromo-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(piperidin-4-yl)amine hydrochloride;

N-[5-(3-Bromo-4-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartarate;

N-[5-(5-Fluoro-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartarate;
N-[5-(4-Chlorobenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartarate;
N-[5-(5-Chloro-2-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartarate;
N-[5-(3-Chloro-4-methoxybenzenesulfonyl)-2-methoxyphenyl]-N-(1-methylpiperidin-4-yl)amine tartarate; and
N-(5-Benzenesulfonyl-2-methylphenyl)-N-(1-methylpiperidin-4-yl)amine.

3. A process for the preparation of compound of formula (I) as claimed in claim 1, which comprises:
reductive amination of compound of formula (II),



(II)

with piperidine-4-one derivatives, using a reducing agent in the presence of a solvent at a temperature to obtain a compound of formula (I), wherein all substitutions are as defined in claim 1.

4. A pharmaceutical composition comprising a pharmaceutically acceptable carrier, diluent, recipient or solvate together with the compound according to claim 1.

5. The pharmaceutical composition according to claim 4, for the treatment of clinical conditions selected from the group consisting of alzheimer's, depression, cognitive memory disorders, schizophrenia and mild cognitive impairment.

6. A compound of formula (I) as claimed in claim 1, for manufacture of a medicament for treatment of a disorder of central nervous system related to or affected by the 5-HT_4 receptor.