
Table of contents

| | |
|--|-----|
| Chapter 1. GIF membership, organization and R&D collaboration | 9 |
| GIF membership | 9 |
| GIF organization | 9 |
| Chapter 2. Highlights from the year | 13 |
| General overview..... | 13 |
| Chapter 3. Country reports | 17 |
| Australia | 17 |
| Canada | 18 |
| China | 20 |
| Euratom | 22 |
| France | 24 |
| Japan | 26 |
| Russia | 26 |
| South Africa | 29 |
| Korea | 30 |
| Switzerland | 33 |
| United Kingdom | 34 |
| United States..... | 36 |
| Chapter 4. System reports | 41 |
| Gas-cooled Fast Reactor (GFR) | 41 |
| Lead-cooled fast reactor (LFR)..... | 45 |
| Molten Salt Reactor (MSR) | 56 |
| Super Critical Water Reactor (SCWR) | 66 |
| Sodium-cooled fast reactor (SFR) | 78 |
| Very-high-temperature reactor (VHTR)..... | 89 |
| Chapter 5. Methodology Working Groups | 103 |
| EMWG: Economic Modelling Working Group | 103 |
| PRPPWG: Proliferation Resistance and Physical Protection assessment methodology Working Group | 106 |
| RSWG: Risk and Safety Working Group..... | 109 |
| Chapter 6. Task Force Reports | 111 |
| ETTF: Education & Training Task Force | 111 |
| SDC-TF: Safety Design Criteria Task Force | 115 |
| AMME TF: Advanced Manufacturing and Material Engineering Task Force | 117 |
| RDTF: Research & Development Infrastructure Task Force | 120 |

| | |
|--|-----|
| Chapter 7. Market and industry perspectives/SIAP report | 123 |
| Market issues | 123 |
| SIAP 2019 charge and response | 125 |
| SIAP intentions for 2020 | 126 |
| Appendix 1. List of Generation IV specific abbreviations and acronyms | 127 |
| Appendix 2. Selection of GIF publications (2018-2019) | 137 |
| General Paper | 137 |
| GFR | 137 |
| LFR | 137 |
| MSR | 138 |
| SFR | 138 |
| SCWR | 138 |
| VHTR | 139 |
| EMWG | 139 |
| PRPP WG | 139 |
| RSWG | 140 |
| ETTF | 140 |
| SDC-TF | 140 |
| AMME TF | 140 |
| RDTF | 140 |